

The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper and for Transmission Abroad.]

No. 2378.—Vol. LI.

LONDON, SATURDAY, MARCH 19, 1881.

[WITH SUPPLEMENT.] PRICE SIXPENCE PER ANNUM, BY POST £1 4s

**MR. JAMES H. CROFTS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.**

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Banks, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

BUSINESS negotiated in Stocks and Shares not having a general market value. Every Friday a general and reliable List issued (a copy of which will be forwarded regularly on application), containing closing prices of the week.

MINES INSPECTED.
BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUUSTELL.

SPECIAL DEALINGS in the following, or part:—
30 Aberllyn, 11s. 40 Hingston Down, £176
30 Almada, 9s. 6d. 80 Javali, 5s. 3d.
10 Cambrian, 15s. 60 Leadhills, £2 7s. 6d.
20 Carnarvon Cop., 20s. 6 20 Marke Valley, £1 8s 9
15 Devon Consols. 60 North D'Ereshy, 25s.
10 Derwent, £1 17s. 6d. 50 Nouv. Monde, £1 7s 6
50 East Crebor, 12s. 6d. 80 N. Penstruthal, £1 15s
20 East Caradon, £1 15s. 40 Pandora, 15s.
50 E. Roman Grav., 16s 30 Pen-yr-Orsedd, 19s.
50 East Van, £2 3s. 9d. 50 Port Phillip, 11s.
70 Frontino, 25s. 70 Potosi, £1 15s.
40 Glenrock, £2 6s. 3d. 70 Prince of Wales, 18s
40 Glenroy, 11s. 3d. (call paid).
10 Grogwinon, £2 10s 90 Parys Copper, 17s. 6d.
60 Herodsfoot, 17s. 6d. 90 Pestarena, 7s. 9d.
* * SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

RAILWAYS—SPECIAL BUSINESS.
FOREIGN BONDS—SPECIAL BUSINESS.
AMERICAN STOCKS AND SHARES—SPECIAL BUSINESS.
Fortnightly accounts opened on receipt of the usual cover in these and all Stock Exchange Securities.

**JAMES H. CROFTS, 1, FINCH LANE, LONDON.
ESTABLISHED 1842.**

**MR. W. H. BUMPUS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.**

BUSINESS transacted in STOCK EXCHANGE SECURITIES and MISCELLANEOUS SHARES of every description. RAILWAYS, BANKS, FOREIGN and COLONIAL BONDS. TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS. Accounts opened for the Fortnightly Settlement. A List of Investments free on application.

MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—
50 Almada, 10s. 150 English-Australian Gold, 28s. 6d.
50 Arendal, £2 13s. 9d. 15 East Lovell, £4 1/4.
100 Bodidris, 22s. 10 Frongoch. 40 Paniclello, £5 8s. 9d.
30 Blue Tent, 32s. 40 Parys Copper, £1 18s.
150 Carnarvon, 21s. 6d. 20 Great Holway, £5 1/4.
10 Cape Copper, £4 1/2. 100 Glenroy, 12s.
25 Colorado, £2 5s. 3d. 40 Gwyn-y-Mynydd, £2 1/2.
40 Copiapo, £2 16s. 3d. 10 Gunnislake (Clitters), £2 1/2.
50 Callao Bis, 33s. 0d. 150 Hungarian Cop., 19s 6
100 Devala-Moyar, £2 1/4. 25 Hingston Down, 28s 6
40 Derwent, 32s. 0d. 100 Indian Glenrock, £2 1/2
15 Devon Consols, £1 11 1/2. 75 La Plata, 30s.
100 Devon Friendship, 22s. 6d. 20 Mellanear, £5 1/4.
100 Don Pedro, 12s. 6d. 10 Mona, £1 1/4.
5 Dolochath, £5 1/2. 40 New Quebrada, £6 1/4.
50 East Caradon, 29s. 6d. 50 New Peavor, 35s.
40 East Van, £2 1/4.
25 Emma, £3 13s. 9d.
3 East Pool, £3s.

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

Mr. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.

**WILLIAM HENRY BUMPUS, SWORN BROKER.
OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.**

**FERDINAND R. KIRK, STOCK BROKER,
5, BIRCHIN-LANE, LONDON, E.C.**

AMERICAN SHARES AND BONDS.—Attention was recently called in "The Week" to Eries when at 39, and Readings at 16, and to Pennsylvania at 60. Despite the great advance still higher prices during 1881 may confidently be relied upon. Fifty shares of each, or any larger number may be secured for the account on receipt of the usual cover. New York Central and Illinois Central deserve attention. Money is to be made by operating in Atlantic and Great Western Mortgage Bonds.

**MR. W. B. COBB, STOCK AND SHARE DEALER,
29, BISHOPSGATE-STREET, LONDON, E.C.**
A FEW VERY CHEAP SHARES in a thoroughly good undertaking. Particulars on application.
Investment Circular for March on application.

**MR. JOHN RISLEY, STOCK AND SHARE BROKER,
38, CORNHILL, LONDON E.C.**
ESTABLISHED 20 YEARS.
WEST CARADON, PARYS, NEW WEST CARADON, and WEST CREBOR specially recommended.
SHARES BOUGHT OR SOLD ON COMMISSION.

**HORACE J. TAYLOR, STOCK AND SHARE DEALER,
(late of the PORT PHILLIP AND VICTORIA [London] MINING
COMPANIES, Limited.)
38, GREAT ST. HELEN'S, LONDON, E.C.**
BUSINESS transacted in EVERY DESCRIPTION OF STOCKS AND SHARES.
WEST LISBURN.—Shares should be secured in this mine, which are long will take an important position.
BWLCH UNITED recommended as a sound legitimate investment.
SOUTH DEVON strongly recommended for an important rise.
BANKERS: CENTRAL BANK OF LONDON (Limited).

**MESSRS. THOMSON AND CO.,
STOCK AND SHARE DEALERS,
44, THREADNEEDLE STREET, E.C.**
BANKERS: ROYAL EXCHANGE.
Business transacted in every description of Stocks and Shares.
TREVINE CONSOLS.—We advise the immediate purchase of these shares Price 25s. There must be a great advance in price shortly. See Report.

**PENNINGTON AND CO., SWORN BROKERS,
3, ROYAL EXCHANGE BUILDINGS, E.C.**
Transact business in every description of Stocks and Shares.
ESTABLISHED 1869.—BANKERS: ALLIANCE.

TREVINE CONSOLS.—This mine continues to improve, and will, in our opinion, shortly occupy a prominent position. We most strongly advise immediate purchase of shares for a rapid rise. Price 25s.
SPECIAL BUSINESS in Devonport and Tiverton Grey's Breweries, New Gold Run, Gold Coast, and Chapel House shares.

BRITISH AND FOREIGN MINING OFFICES.

**MESSRS. PETER WATSON AND CO.,
18, AUSTIN FRIARS,
OLD BROAD STREET, LONDON, E.C.
BANKERS: THE ALLIANCE BANK (Limited).**

**MESSRS. PETER WATSON AND CO.'S
BRITISH AND FOREIGN MONTHLY MINING NEWS
—STOCK AND SHARE INVESTMENT NOTES—MINES,
MINERALS, AND METAL MARKETS—SHARE LIST,
No. 828, Vol. XVI, for MARCH month, will shortly be ready,
and will be sent to customers on application.**

Annual Subscription..... 5s. | Single Copy..... 6d.

**MESSRS. PETER WATSON AND CO.,
18, AUSTIN FRIARS, E.C.**

**MR. ALFRED E. COOKE,
DEALER IN BRITISH AND FOREIGN STOCKS AND SHARES
OF EVERY DESCRIPTION.
76, OLD BROAD STREET, LONDON.
ESTABLISHED 1853.**

**DEVON
FRIENDSHIP.**

**WEST
PROVIDENCE.**

By May the monthly profits will reach upwards of £500, and be afterwards greatly augmented. This will give a good dividend to begin with. Shares supplied at lowest market price.
Shares strongly recommended. The Mines are situated in one of the richest tin districts in the world, from which HUNDREDS OF THOUSANDS OF POUNDS' PROFIT have been realised. Particulars on application.

RICH SILVER-LEAD ORE.

A highly satisfactory assay has been made of a sample of ore from NORTH DEREVY MOUNTAIN MINE, By Messrs. Johnson and Matthey. Shares should be bought immediately at 25s.

THE INVESTORS' GAZETTE.

Every operator in MINES, RAILWAYS, FOREIGN STOCKS, or AMERICAN STOCKS should read the above. Post free three stamps. Published every alternate Friday. New Number last evening.
**ALFRED E. COOKE,
76, OLD BROAD STREET, LONDON.**
(Over 14 years at the above offices, adjoining the Stock Exchange, with which they are in DIRECT TELEGRAPHIC COMMUNICATION.)

**STOCKS AND SHARES,
FOREIGN BONDS, TELEGRAPHS, TRAMWAYS, RAILWAYS, AND
OTHER LEADING SECURITIES.**
**MR. JAMES STOCKER, STOCK BROKER,
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.**
Special Business at close prices in all British, Colonial, and Foreign Mine Shares. BANKERS: LONDON AND WESTMINSTER.

**JOHN B. REYNOLDS,
STOCK AND SHARE DEALER,
37, WALBROOK, LONDON, E.C.**
ESTABLISHED 25 YEARS.
BANKERS: LONDON JOINT STOCK.

Mr. REYNOLDS affords reliable information to investors, and particularly to those having speculative securities.
Mr. REYNOLDS is a buyer of a limited number of shares in the West and New Kitty Mines. Orders for the purchase must be left at his office; the business may be privately negotiated, as bona fide sellers are becoming increasingly difficult to meet with at anything like fair prices.

WEST POLBRENE.

Mr. REYNOLDS is a buyer of any part of Two Hundred Shares at 25s. each. The great success of the St. Agnes district causes the enquiry for this stock. The mine is expected to be quickly brought into a profitable position. Investors are advised to purchase, and there are ready sellers at 30s.

**MR. ALEXANDER DAVIDSON,
STOCK AND SHARE DEALER,
139, LEADENHALL STREET, LONDON, E.C.**
OFFERS THE FOLLOWING SHARES FOR SALE AT PRICE AFFIXED, PROVIDED THEY ARE NOT SOLD, WITHDRAWN, OR PRICE ADVANCED:—

40 Polrose, £0 17s. 6d.	50 Wheel Bassett, £4 2 6	120 Wheel Jane, 14s.
30 East Caradon, £1 10s.	10 Mona, £14 7s. 6d.	100 West Crebor, offer.
40 East Crebor, 13s. 9d.	40 Parys, £0 15s. 0d.	40 West Phoenix, £2 0s 6
25 Gawton, £1 8s. 9d.	40 Prince of Wales, 18s 6	25 Wheel Crebor, £4 2s 6
40 Marke Valley, £1 7s 6	50 So. Devon Uni., £3 10	
50 Bodidris, £0 16s. 6d.	East Wheel Roy, £12	150 South Darren, £1 15s.
40 Derwent, £1 17s. 6d.	90 Glenroy, £0 9s. 0d.	100 Tamar Hill-Lead, £1 2
150 E. Craven Moor, 16s 6	70 Herodsfoot, £0 17s. 0d	10 Van, £13 15s.
60 Alma and Tir., 9s. 0d.	70 Indian Glenrock, £2 3s. 9d.	20 Paniclello, £6 10s.
40 Canada Copper, £2 5s.	100 La Plata, £1 10s. 0d.	100 Port Phillip, £0 9s. 3d
70 Callao Bis, £1 10s.	100 Mysore Reefs, 2s. dis.	140 So. E. Wynaad, £13 9
70 Devala-Moyar, £2 3 9	100 Nouveau Monde, 28s.	110 South Indian, £2 17s.
50 Hungarian Cop., 18s.	60 Organos, £1 8s.	90 Pestarena, 8s. 3d.
120 Hoover Hill, 3s 9 pm.	100 Oregum, 1s. 3d., pm.	
40 Indian Phoenix, £1 13		

SPECIAL NOTE.—Any part of the above shares can be obtained. Less prices might be accepted in some cases if offers were made.

**MR. F. CUNNINGHAM, STOCK AND SHARE DEALER,
THE EXCHANGE, SOUTHWARK, LONDON.**
NOTE.—TIN HILL shares should be bought at once.

**MESSRS. ABBOTT AND WICKETT,
STOCK AND SHARE BROKERS, REDRUTH.
ORDERS BY TELEGRAM PROMPTLY EXECUTED.**

**MR. THOMAS THOMPSON, JUN., STOCK BROKER,
16, ST. SWITHIN'S LANE, E.C.**
Mr. THOMPSON transacts business in every species of Stock Exchange and Mining Securities.
Mr. THOMPSON affords reliable information to investors, and can give when desired, a list of first-class Stocks and Shares, yielding 4 to 10 per cent. dividends upon present prices.
Mr. THOMPSON'S weekly Circular may be had on application.

**EKINS AND CO., STOCK AND SHARE DEALERS
14, QUEEN VICTORIA STREET, LONDON, E.C.**
Special Recommendations:—
WHEEL GEORGE SHARES, at 37s. 6d.—A discovery that is estimated to return greater profits than the capital of the mine (£15,000) has been made here. SILVER HILL SHARES, at £1 par.—This mine is the most important portion of the Callington district. To secure shares at par immediate application should be made.

**JOSEPH TOMS, STOCK AND SHARE DEALER,
No. 88, BISHOPSGATE STREET WITHIN, E.C.**
Strongly recommends the purchase of shares in—
Carnarvon Copper. Wheel Boys. East Lovell.
Parys Corporation. West Holway. Wheel Greenville.
And is in an advantageous position to supply shares at close net prices. Buyers or sellers should communicate. A selected list of investments post free on application.
Great Holway shares should be purchased for an important rise in price.

**MR. CHARLES THOMAS,
MINING AGENT, STOCK AND SHARE DEALER,
3, GREAT ST. HELEN'S, LONDON, E.C.**

**MR. ALFRED THOMAS,
MINING AGENT, AND STOCK AND SHARE DEALER,
10, COLEMAN STREET, LONDON, E.C.**

MINING INVESTMENTS.—Second Edition, just published.
"What to Select, and What to Avoid," by ALFRED THOMAS, 10, Coleman-street, London, E.C. Will be forwarded on receipt of 12 stamps.

NOTICE OF REMOVAL.
**HENRY GOULD SHARP
HAS REMOVED FROM
42, POULTRY, TO 21, THREADNEEDLE STREET.**

ESTABLISHED 1852.
**HENRY GOULD SHARP,
STOCK AND SHARE BROKER, 21, THREADNEEDLE STREET,
LONDON, E.C.**
Bankers—London and County Bank, Lombard-street, London, E.C.

SAFE PROFITABLE INVESTMENTS.
INVESTMENTS IN STOCKS AND SHARES.
GOLD, FOREIGN, BRITISH MINES
CAPITALISTS, SHAREHOLDERS, TRUSTEES
Should act only upon SOUND ADVICE and Reliable Information.

SHARP'S INVESTMENT CIRCULAR
The MARCH EDITION contains 12 pages (post free).
SAFE DIVIDEND INVESTMENTS PAYING 4 TO 6 AND 10 PER CENT.
PER ANNUM ON PRESENT OUTLAY.
It is a Reliable "Guide," giving valuable information and Sound Advice, &c. It gives Market prices; Dividends upon outlay, when payable; Reports, &c., &c. IT CONTAINS THE SAFEST INVESTMENTS IN THE FOLLOWING:—
English, Foreign Railways. Insurance, Gas, Waterworks.
Preference, Debenture Stocks. Colonial, Foreign Stocks.
Indian, American Stocks. British, Foreign, Colonial Mines.
Bank, Financial Shares. Tea, Land Shares.
Tramway, Telegraph Shares. Shipping, Dock Shares.
Municipal Bonds. Miscellaneous Shares, &c., &c.
NOTE.—ALL STOCKS AND SHARES BOUGHT AND SOLD AT THE CLOSEST QUOTATIONS.

**MR. E. J. BARTLETT, BRITISH AND FOREIGN STOCK
AND SHARE DEALER, No. 30, GREAT ST. HELEN'S, LONDON, E.C.**

Now ready, Fifteenth Edition, enlarged to 100 pages, post free 1s.
HOW TO INVEST.—No one should invest either large or small sums without first reading this work.
"More valuable than ever."—Vide Public Press.

**MR. EDWARD ASHMEAD, 2, DRAPER'S GARDENS, E.C.,
MINING SECRETARY, AUDITOR, AND ACCOUNTANT.**

**JOHN BANTING ROGERS, STOCK AND SHARE DEALER,
ST. CLEMENT'S HOUSE, LOMBARD STREET, LONDON.**

**THOMAS B. LAWS, STOCK AND SHARE DEALER,
AND MINE ACCOUNTANT,
2, CHURCH COURT, CLEMENTS LANE, LONDON.**

**MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,
29, BISHOPSGATE STREET, LONDON, E.C.**
Can SELL the following SHARES at prices annexed:—
25 Bedford Unit., £2 1/2. 88 Exchequer Gold, 4s. 9
50 Brazilian Gold, 22s. 9d. 10 East Lovell, £4 1/2.
10 Bwlch United. 25 Frontino, £5.
20 Carn Camborne. 20 Gunnislake (Clitters), £2 1/2.
50 Carnarvon, 21s. 50 Callao Bis, £1 1/2.
25 Colorado, £2 3/4. 10 Kit Hill, 5s. prem.
50 Consolidated, 10s. 40 New Wye Val., 20s.
25 Dev. Friendship, £1 1/4. 20 North Alfred, £2 1/2.
20 Devon Gt. Uni., £2 8 9 25 No. D'Ereshy, 25s.
50 Don Pedro Gold, £3. 40 Nouveau Monde, 28s.
20 Devon Consols, £12. 30 Parys Corpor., 17s. 6d.
25 English Australian Gold, £1 6s. 3d. 100 Pestarena, 7s. 6d.
50 Port Phillip, 9s. 3d. 50 Prince of Wales, 18s.
WEST LISBURN.—These shares should be secured at present low price for a certain rise in the coming spring.
NORTH ALFORD.—An important improvement has taken place in this mine. shares dealt in at close prices.

**MR. GEORGE BUDGE, STOCK AND SHARE DEALER
9, GRACECHURCH STREET, LONDON, E.C. (Established 28 years).
ALL BUSINESS TRANSACTED FREE OF ANY CHARGE FOR COMMISSION.**

Notice to Investors and Speculators.
Mr. BUDGE has DEALINGS in—
Aberllyn. 130 Gold Coast. 150 New Gold Run.
50 Bodidris. 50 Glenroy. 50 North Herodsfoot.
100 Bedford United. 10 Grogwinon. 40 New Kitty.
15 Blue Hills. 25 Glenrock. 20 Nouveau Monde.
40 Callao Bis. 50 Hungarian Copper. 100 Oregum.
5 Devon Great Consols. 30 Kit Hill. 100 Prince of Wales.
100 Don Pedro. 50 Indian Phoenix. 20 Paniclello.
70 Devala Moyar. 50 Lady Ashburton. 50 South Tolarne.
50 East Devon Consols. 45 Llandegla. 60 South Devon.
50 Exchequer. 100 Ladywell. 63 Trevine Consols.
100 English Australian. 100 La Plata. 80 West Kitty.
25 East Chiverton. 20 Marke Valley. 80 Wheel Jewell.
40 East Van. 50 Mysore Reefs. 50 West Phoenix.
10 Frongoch. 50 Mynydd Gorddu. 100 Wynaad Perseverance.

**MESSRS. ENDEAN AND CO., STOCK AND SHARE
DEALERS, 65, GRACECHURCH STREET, LONDON, E.C.
ESTABLISHED 1861.**
BANKERS: LONDON AND WESTMINSTER, Lothbury; and
BARCLAY, BEVAN, and CO., Lombard-street, E.C.

**FRANCIS FRANCIS,
CORN EXCHANGE CHAMBERS, CHESTER**
Has SPECIAL BUSINESS in HALKYN DISTRICT DRAINAGE, RHYDALUN RHODESMOR, NORTH HENDRE, and PEN-YR-ORSEDD.
Also, in PITANGUI (Gold), BRAZILIAN GOLD MINES, SANTA BARBARA, and WEST FRONTINO.

**MR. JOHN L. M. FRASER,
(Fourteen Years at the Great Miners' Mines)
CONSULTING MINING ENGINEER, &c.
GREENFIELD HOUSE, WREXHAM.**

BRITISH SILVER-LEAD MINES.
Samples and assay of the silver-lead ore from the Great New-borough Lode, with a Plan of this Property, can be seen, and all information obtained, at—
GARRICK'S HOUSE, ADELPHI, STRAND.

TIN HILL MINES, LIMITED.

We direct attention to the report on page 349 of the First Ordinary General Meeting of TIN HILL, LIMITED.

Mr. T. LAWRENCE in the chair.

Our Latest Recommendation.

This, our latest recommendation, has achieved another success for us, and large profits for those of the public who are original shareholders.

Rise in Price.

Since we first directed attention to them in December last the shares have risen 120 per cent., and the price at which they stand at the present time is no criterion whatever of the advance that will take place very shortly.

Fine Quality and Purity.

The ore is of an exceptionally high average quality and of great purity, rivalling the best Cornish mines.

No Speculation.

This is no speculation or risk, as there are extensive reserves of ore that have never been touched.

Another Advance.

We are certain that another great rise of price is very near at hand.

Recommendation to Buy.

Those who wish to secure the advantage of present quotation—£2³/₁₆ per share—must purchase immediately, as the upward movement may be most unexpected.

DALSTON AND CO.,
29, THREADNEEDLE STREET,
LONDON, E.C.

This mine has already returned, it is estimated, over £200,000 in profits, whilst the £5 shares rose to £195 each. This, too, with the disadvantage of inferior machinery. The reports show that there are now £2,000,000 worth of ore in the mines, which can be at once worked on by water-power only, no expensive steam machinery being required, as an arm of the River Fal passes through the property, giving ample water-power for all purposes.

Great Wheal Polgooth, Limited.

Incorporated under the Companies Acts, 1862 to 1880, whereby the liability of the shareholders is absolutely limited to the amount of their Shares.

SPECIAL ATTENTION is drawn to the following facts:—

- 1st.—Great Wheal Polgooth is on the same lodes, and possesses the identical tin producing elvan courses as—
 - (1.) Great Polgooth, which mine has returned £500,000 in dividends.
 - (2.) Great Hewas, " " 400,000 "
 - (3.) St. Austell Consols, " " 390,000 "
- 2nd.—The shareholders of Great Wheal Polgooth have guaranteed to them Seven and a-half per cent. on their capital for the first six months—15 per cent. per annum.
- 3rd.—The sett being so extensive Great Wheal Polgooth will sell a part of its property to a subsidiary company for £50,000, thus returning to the shareholders 10s. on each share. Offers have been already made for the purchase of this portion of the property, and a large number of shares have been subscribed, amounting to more than 30,000 shares. The new company will be called Great North Polgooth.

CAPITAL £100,000 IN 100,000 SHARES OF £1 EACH,

Of which 30,000 shares are reserved as part payment to the vendors.

40,000 Shares have been already applied for, and the remaining 30,000 are now offered to the public.

PAYMENT AS FOLLOWS:—2s. on application; 3s. on allotment; and the remainder as required, in calls of not exceeding 5s. each, with not less than one month's notice.

If no allotment be made the amount paid on application will be returned in full forthwith.

Allotment will be made in strict priority of application, without selection.

DIRECTORS.

H. S. WILDE, Esq., Director of the Eureka (Nevada) Consolidated Mining Company (Limited).

Sir WILLIAM CROSBIE, Bart., Director of the Pluto Gold Mining Company.

Major FORTESCUE, J.P., Director of the West Frontino and Bolivia South American Gold Mining Company.

General NUTHALL, Director of the East Wheal Rose (Limited).

BANKERS—IMPERIAL BANK (Limited), Lothbury, E.C.

AUDITORS—Messrs. C. BROWNE, STANLEY, and CO., Queen Street, Chapside, E.C.

SOLICITOR—CHARLES TURNER, Esq., 64, Fleet Street, E.C.

MANAGER OF THE MINE—Captain THOMAS FORTESCUE.

SECRETARY—Mr. N. J. WIDDICOMBE.

OFFICES,—TOWER CHAMBERS, MOORGATE STREET, LONDON, E.C.

PROSPECTUS.

This company is formed for the purpose of acquiring and working—and for selling such portions of the property as may be determined—an extensive and very valuable range of tin and copper lodes in the rich mineralised district of St. Mewan, near St. Austell, in the county of Cornwall.

The property comprises the mining leases for about 21 years, at a royalty of 1-18th. The sett covers an area of nearly three quarters of a mile square, and is situated in one of the richest tin districts in Cornwall.

The property is admirably situated for economical working, being close to Bungulow Railway Station on the Cornwall Railway, and only 2½ miles from the Port of Pentuan. The killas, or clay-slate, in which the lodes are embedded is especially easy to work, and, as Capt. Francis Puckey says in his report, "as soon as you have stamping power you can commence to return tin, and after 40 years' experience I have every reason to believe you will open out a lasting and profitable mine."

It is bounded on the east by the Great Polgooth Mine, which has returned 500,000l. to its shareholders.

On the west by the St. Austell Consols, Dowgais, Strawberry, Fortescue, and other mines, all celebrated for the richness of their lodes. St. Austell Consols alone paid £390,000 in dividends in a few years, and on the south it is bounded by the great Hewas Mines, which paid £400,000 in dividends in a comparatively short time.

The Great Wheal Polgooth sett contains seven well known lodes, which have been explored with extraordinary results. These results are set out in the reports of the highly trustworthy agents who have been deputed to examine the property, and whose reports are appended herewith, and they are abundantly confirmed by the report of Capt. Thomas Fortescue, Surveyor of Mines, who was specially appointed to investigate the prospects of the mine previous to completing the purchase. He says:—"The whole seven lodes of this property are wonderfully rich—two alone of the seven having returned upwards of £200,000 in dividends, and I should estimate that in these two lodes there now remains upwards of £350,000 worth of ore, and in the whole seven lodes I estimate there must be quite £1,200,000 profit for any company which is fortunate enough to work them. The tin can be got out at once; no sinking of shafts or expensive machinery is required; neither have you to search for your tin—here it is, and any amount of it, and all you have to do is to remove and sell it. I have been 25 years tin Australian in mines, and I never in all that time saw such splendid looking stuff; many samples which I took away averaged 4 cwt. tin to the ton of lodestuff, and this from haphazard breaking only. The lodes are simply walls of tin, and as depth is gained the profits must be fabulous."

There are three facts which prove the great value of this property:—

- 1st.—The whole of the above-mentioned lodes pass through Great Wheal Polgooth, which mine has been already worked, and has returned immense quantities of tin, yielding enormous profits, until litigation stopped the works, hence the reason of this company being able to acquire so valuable a property. It is estimated about £200,000 was divided amongst the former workers of the mine, which must conclusively show its great value.
- 2nd.—The lodes are worth upwards of 2½ cwt. to the ton of lodestuff, which is a splendid percentage, being better than the yield of any of the above-mentioned successful undertakings, and is much higher than the percentage of Dolcoath, which has paid over £500,000 in dividends, and whose shares have been up to about £100 each. It must also be borne in mind that this high percentage is at a depth of 20 fms. only, which proves incontestably the great value of the property, as mines never fail to improve as depth is gained, and 20 fms. is, of course, no depth at all.
- 3rd.—The mine can be altogether worked by water-power, thus saving the heavy cost of expensive steam machinery, fuel, &c. The erection of a water-wheel and stamps is all that is required, as an arm of the River Fal passes through the sett, providing ample water-power for as many stamps as will be requisite.

The sett being so extensive, the directors will sell a portion of the property to a company which will be formed for the purpose for £50,000, the whole of which sum will, when subscribed, be divided among the shareholders. This will of course be exclusive of the 7½

per cent. (or 15 per cent. per annum), which is guaranteed for the first six months.

Such faith have the vendors in the value of the property that they have agreed with the company to guarantee that the dividend for the first six months shall not be less than at the rate of 7½ per cent. (or 15 per cent. per annum). The vendors will leave 7500 shares in the hands of the directors to cover the guarantee. This period will give ample time to fix the water-wheel, stamps, &c., and to get in full going order—for although the metal can be got out of the mine at once, as Capt. Fortescue says in his report, yet it must take a reasonable time to make a fair start.

The approximate monthly profit at present price of tin (£91 per ton) would be very large, but the directors prefer to be well within the mark, and have based their calculations on tin at a lower price. They have also reckoned the expenses at a very high figure, and although it is not likely that they will be nearly so high as estimated, having regard to the water-power which will be used instead of steam-power, and to the railway facilities, yet such a percentage must, of course, provide for every contingency, and it is fairer to intending investors to put before them the lowest possible amount of profit instead of a maximum amount.

Even at this moderate computation the annual profit will be about £66,300, or 66 per cent. on the entire capital. Good as this profit is, it is nothing compared to what many and many mines have paid, so there is no reason why this percentage should not be doubled. Devon Great Consols pays about 160 per cent., South Caradon has paid 500 per cent. and more, East Pool pays about 400 per cent. Many more instances could be quoted where English tin mines have paid hundreds per cent. for years and years.

The company is promoted solely by the vendors, by whom the purchase money has been fixed at £65,000, of which £35,000 is to be paid in cash and £30,000 in full paid-up shares.

The company will start, therefore, with a clear £35,000, which is far more than would be required even if it were intended to work in the usually expensive manner which attaches to most mines, but as this company will be worked so economically, no machinery being required other than the water-wheel and stamp-heads, the capital will be more than ample.

No promotion money in any shape or form has been or will be paid, either directly or indirectly, and the only contracts entered into are one dated the 8th March, 1881, and made between G. E. Hooke, of the one part, and James Anderson, of the other part; one dated the 8th March, 1881, and made between James Anderson of the one part, and Nicholas John Widdicombe of the other part.

The full and exhaustive reports of the well-known mining captains and agents, which are enclosed herewith, give further particulars respecting the property and its wealth, and the contracts, Memorandum, and Articles of Association may be seen at the offices of the solicitors to the company.

The Directors will apply to the Stock Exchange Committee for an Official Quotation. The directors confidently recommend this company to the attention of investors—

- (1.)—By reason of the great value of the adjacent properties.
- (2.)—The great wealth of the lodes of this company, as certified by the agents' reports appended herewith.
- (3.)—The fact that, instead of subscribers waiting for one or more years for a return upon their capital, as is generally the case in the working of undeveloped property (as with the Indian Gold Mines), a return is certain so soon as stamps are erected, which need occupy very little time (it is unlike having to send the stamps all the way to India, and then over bad roads, or no roads at all).
- (4.) And finally—the extremely favourable terms of purchase, especially as compared with the fabulous sums which have been given lately for mines in India and America. Cornwall has been famed for centuries for its enormous wealth in copper and tin, and for the fortunes which have been made there. There is probably no richer area of ground in the world than Cornwall, not even excepting gold-bearing regions, and as gold mines in India and America are too far off to allow shareholders to satisfy themselves as to the bona fides of the property brought before them, or to inspect the mines from time to time, no investment can offer better inducement than a good English tin and copper mine of proved mineral wealth, and worked under the management of a board of directors skilled in mining matters.

(LIMITED).

Of which 83,334 fully paid-up shares will be allotted as part payment for the property purchased.

(LIMITED).

Applications for prospectuses of the Great Polgooth United Tin Mines, Limited, with full reports, &c., should be made to Mr. G. H. KEENE, 48 and 49, Palmerston Buildings, London.

The SUBSCRIPTION LIST WILL CLOSE on or before MONDAY,
MARCH 21st, 1881.

The Moss Bay Hematite Iron and Coal Company, Limited.

REGISTERED 4TH MARCH, 1881, UNDER THE COMPANIES ACTS, 1862 TO 1880.

CAPITAL £350,000, IN 17,500 SHARES OF £20 EACH.

Payable as follows:—£5 on allotment, £5 on April 30th, £5 on July 31st, 1881, leaving £5 uncalled.

JOSEPH LEDGER, Esq., Ironmaster (Aireside Hematite Iron Company, Leeds), Castellet Tower, Keswick—CHAIRMAN.
THOMAS D. RIDLEY, Esq., Contractor, Coatham, near Middlesbrough.
JOHN BOWMAN, Esq., Polam Grange, Darlington.
PETER G. QUIRK, Esq., Ironmaster, Workington.
CHARLES JAMES VALENTINE, Esq., Ironmaster (Director of the Cleator and Workington Junction Railway), Workington.
PETER KIRK, Esq., Ironmaster, Bankfield, Workington.

BANKERS—CUMBERLAND UNION BANKING COMPANY (Limited), Carlisle, Workington, and Branches, or their Agents.
Messrs. BARCLAY, BEVAN, and CO., Lombard Street, London.

SOLICITORS—Messrs. PLEWS, IRVINE, and HODGES, 79, Mark Lane, London, E.C.

AUDITORS—Messrs. BURRELL and PICKARD, Leeds.

STOCKBROKERS—Messrs. BOWMAN BROTHERS, Hopwood Avenue, Market Place, Manchester.

SECRETARY—Mr. WALTER W. WILLIAMS

REGISTERED OFFICES—MOSS BAY, WORKINGTON.

LONDON OFFICES—3, LOMBARD COURT, E.C.

ABRIDGED PROSPECTUS.

This company is formed for the purpose of taking over and working the established business of the Moss Bay Hematite Iron and Steel Company, which has hitherto been carried on as a private concern, and successfully worked for a period of upwards of 8½ years to the present time, paying out deceased partners' interest, and providing the additional capital necessary for these purposes.

The four present proprietors—Messrs. C. J. Valentine, Peter G. Quirk, Peter Kirk, and Joseph Ledger—transfer the concern as it stands, in good order and full work, with the benefit of its current contracts at the actual cost, less the amount written off from time to time for depreciation, making the net purchase at £242,739 7s. 10d., as shown in the books of the firm, and certified by George Dove, Esq., J.P., of the firm of Cowans, Sheldon, and Co., engineers, Carlisle, with a sum of £15,000 in addition as premium, out of which they will meet the expenses of the formation of the company. The works have been maintained at a high standard of efficiency out of revenue. The stocks have been carefully valued and transferred to the new company at current market prices. The current contracts above referred to are on exceedingly favourable terms.

The four present partners will take 6668 shares, credited with £15 per share paid, making £100,020, and leaving the sum of £33,340 further liability. The deceased partners' capital, amounting to about £40,000, will be paid by debentures of the company, repayable in, say, four years, bearing interest at 5 per cent. per annum.

Subject to the approval of the shareholders, it is intended to leave the management of the concern in the same hands as heretofore assimilating the same as nearly as possible to that of a private firm, and with this view Messrs. Valentine and Kirk, two of the vendors, have consented to act as managing directors, and continue their interest and influence in carrying on the business with the superintendence of other gentlemen as co-directors.

From a careful analysis, prepared by Messrs. Burrell and Pickard, accountants, Leeds, of the results of the trading during the eight years, up to the 30th June, 1880, it appears that the concern has earned and apportioned among the partners profits on their capital equal in average of the whole period to £25½ per cent. per annum.

The high character which these works enjoy, the success which has resulted from the operations carried on, the valuable connections which now exist with various railway companies and other large buyers in the United Kingdom, the Colonies, India, and other countries, and the *bona fides* of the proprietors in their present desire to convert their property into a company, will at once command the necessary additional amount of subscription to its capital.

Prospectuses may be obtained from the Bankers, Solicitors, Auditors, Brokers, and the Company's Offices.

It is not proposed to call up more than £1 per Share, but to raise further capital by Debentures under the Articles of Association.

The Anglo-American Agricultural Company, Limited.

Incorporated under the Companies Acts, whereby the liability of Shareholders is limited to the amount of their Shares.

CAPITAL £1,000,000, IN 200,000 SHARES OF £5 EACH.

(INCLUDING 100 FOUNDER'S SHARES OF £5 EACH.)

First Issue of 100,000 Shares at Par.

Payable 5s. on application, 15s. on allotment, balance as required, but no call to exceed £1 per share, or be made on less than three months' notice.

DIRECTORS.

The Right Honourable the EARL OF DUNMORE.—PRESIDENT.

Sir DAVID LIONEL SALOMONS, Baronet.—VICE-PRESIDENT.

General Sir HENRY CHARLES BARNSTON DAUBENEY, K.C.B., 36, Elvaston Place, Queen's Gate, S.W.

RICHARD SYKES, Esq., Edgeley House, Stockport.

J. FISHER SMITH, Esq., of the New York Life Insurance Company, Dalkeith House, Richmond, Surrey.

JOHN RAE, Esq., M.D., L.L.D., F.R.S., late of the Hudson's Bay Company, and Director of Manitoba Mortgage and Investment Company (Limited), 4, Addison Gardens, Kensington, W.

R. M. ROBERTSON, Esq., Director of New Zealand Agricultural Company (Limited), 12, Stanley Gardens, Kensington Park.

MANAGER—MILAN G. CLAPP, Esq., Dashwood House, 9, New Broad Street, E.C.

BANKERS—London: The LONDON AND COUNTY BANKING COMPANY (Limited), and Branches.
Scotland: The BRITISH LINEN COMPANY BANK, and Branches.

SOLICITORS—Messrs. DRUCES, JACKSON, and ATTLEE, 10, Billiter Square, E.C.

AUDITORS—Messrs. TURQUAND, YOUNGS, and CO., 41, Coleman Street, E.C.

BROKERS—In London: Messrs. NICKISSON, POSTON, and EVANS, 7, Draper's Gardens, E.C.

Messrs. PAGET and EDWARD, St. Stephen's Chambers, Telegraph Street, E.C.

In Edinburgh: Messrs. JOHN ROBERTSON and CO., 31, George Street.

In Glasgow: Messrs. MITCHELL, WATSON, and WINK, 75, St. George's Place.

In Manchester: S. H. HODSON, 10, Commercial Buildings, 15, Cross Street.

SECRETARY (PRO TEM.)—GEORGE PHILPOT, Esq.

OFFICES—DASHWOOD HOUSE, 9, NEW BROAD STREET, E.C.

PROSPECTUS.

This company has been formed for the purchase, stocking, development, improvement, re-sale, and letting of land in Russell, Marion, and McPherson Counties, on the lines of the Kansas Pacific, and the Atchison, Topeka, and Santa Fé Railways, in the southern part of Kansas, United States; and of such other lands as may be deemed most profitable for colonisation, stock raising, and general agriculture; for the purpose of making loans upon the security of improved farms; and the furtherance of the other objects mentioned in the annexed Memorandum of Association.

Prices range from 5s. upwards per acre for the fee simple, according to locality. Arrangements can be immediately made for purchase upon very favourable terms of at least 200,000 acres of suitable land from the above railway companies.

The valleys of the Kansas and Arkansas rivers, in Southern and Central Kansas, possess great advantages. The climate is favourable nearly all the year round for agricultural work, and the recent railway development (bringing markets within easy reach) and the cheapness and fertility of the land, present all the conditions conducive to colonisation and agricultural enterprise.

The great mineral resources of the neighbouring States are becoming rapidly developed, and the mining population draws to a great extent its supplies from Kansas, Nebraska, and Iowa.

Kansas has risen, amongst the States of the Union, from No. 11 in

1870 to No. 1 in 1878, in the growth of grain; the produce of the year 1878 being 32,500,000 bushels of wheat, and 90,000,000 of maize, the latter having increased to 108,000,000 bushels in 1879. (See Reports of State Board of Agriculture.)

STOCK RAISING.—With wide ranges of fine grazing lands, midway between the extremes of heat and cold, this business is inexpensively conducted, and made to yield large returns.

DAIRYING is especially profitable under the American cheese factory system.

It is proposed to lay out towns and settlements, and engage in building as the demand shall require.

In addition to the rapid increase in value of lands, the company anticipate large profits from the sale and rental of small improved farms to settlers, at prices greatly in excess of the rate paid per acre by the company. For such farms there is a large and increasing demand.

The great prosperity attending agricultural enterprise in the Western States of America, especially in Kansas, points to this as being a most inviting field for both capitalist and emigrant. It is believed that a great number of farms, from 160 acres upwards, can be improved and sold within a short time, thereby returning a large profit to the company, and at the same time greatly increasing the value of the remaining property.

The company do not propose to confine their operations to Kansas, but purpose taking over, improving, and settling large tracts of the best lands at several points in Western States best suited to stock raising, farming, &c., thus giving choice of locality to investors and settlers.

ASSISTANCE TO FARMERS.—The company propose to lay out and improve small and large farms, fitting them for immediate occupation, and to allow shareholders and settlers to pay for them by instalments, extending over a period of years. Farmers and others with small capital may thus obtain immediate possession of good freehold farms.

SMALL DEPOSITORS.—Accounts may be opened with depositors of all classes, thus encouraging saving, and enabling those with small means to gradually acquire farms and homes for themselves, interest being in the meantime allowed by the company.

The great success of similar companies is well known.

MANAGEMENT.—The company will be managed by a board of directors in London, with a manager and staff in the States, acting under their control.

The founder of the company, Mr. M. G. Clapp, is to receive one hundred paid-up founder's shares, which are to carry no dividend in any year unless the net profits for the year shall be in excess of 10 per cent. on the whole paid-up capital, as more fully appears in the Articles of Association. In that case one-tenth of the excess is to fall to the founder's shares, a corresponding sum to the directors by way of extra remuneration, and the remaining eight-tenths to the shareholders.

The only contract is one dated the 5th day of March, 1881, and made between the above-named directors of the one part, and the above named Milan George Clapp of the other part.

The contract and Articles of Association may be seen at the offices of the solicitors of the company.

In the event of no allotment being made the deposits will be returned in full.

Prospectuses and forms of application for shares may be obtained at the bankers and brokers of the company; also at the company's offices, Dashwood House, No. 9, New Broad-street, E.C.

London, 5th March, 1881.

MINERAL WORKS AT CHICAGO.

The almost unparalleled advantages possessed by Swansea for the import and export of minerals, and for obtaining an unlimited supply of cheap and suitable smelting fuel has caused it to be acknowledged by common consent as the first smelting centre in the world and although there is little probability of Chicago proving a serious rival, it may be as well to note that an American metallurgist—Mr. W. H. Adams—contributes an interesting paper to the New York Engineering and Mining Journal, in which he refers very strongly to the claims of Chicago as a location for metallurgical works. With all our boundless resources, our wealth and ambition, we cannot, he says, boast of a single established metallurgical works, where all classes of ores can find a ready market, and where the vital processes shall be so combined, so thorough in their nature, as to produce results attained at present only by the best works of Europe—works which shall be creditable alike not only to their projectors, managers, and the city in which they are located, but primarily profitable. That this is so, follows from the wonderful discovery and rapid increase of our wealth from mineral sources, and the fact so little understood that we have yet in our midst the first generation of metal workers! It is not expected that the circumstances which governed the location of our many smelting works in the early history of the territory will hereafter be met with.

The new processes for concentration of difficultly fusible ores, and the rapid entrance of railway lines into all new mining camps, obviate the necessity of local expensive treatment, and benefit the mines by opening the world's markets to their products. With competing works outside and increased capital, with cheaper transportation to fuel and market, the death-knell of small smelters is sounded. We cannot wonder at the many failures, even though location were not against them, when we remember that the demand for experience to meet the difficulties was tenfold in excess of the supply. Time alone can determine the location of works to meet the wants of mining countries. Ten years ago Utah was leading the bullion yield. Eight years ago Chicago and Omaha were the large purchasers of bullion and ores; New York and Newark second; Hill's works doing a local business, and most of the mattes and very rich ores sent to Swansea, Wales. Five years ago Omaha was the leading buyer of bullion, Newark gaining steadily, with St. Louis and Pittsburg coming into view, as Chicago was lost in the mire of inexperience and recklessness. Since that time new developments and railway extensions have materially changed matters, and we see Omaha, St. Louis, Pittsburg, and Newark on substantially even terms for purchases, and a new giant at Denver standing at the gateway, absorbing the cream of rebellious ores that heretofore have fattened the freight lines and Swansea smelters. San Francisco also is bidding for a commanding place, and Kansas City will soon be in the market for a share of the South-Western trade. Even yet no one section has developed enough of the necessary ores and fuels to warrant the erection of works fulfilling all the requirements. With the knowledge gained from the experience of the past 12 years would it be possible to locate such a true metallurgical works?

After pointing out in detail the essentials for success, Mr. Adams enquires—Does or would Chicago fulfil the principal requirements, the basis of the business? Lake Superior lies within easy rail and water communication, having deposits of pure copper in quartzite, &c., and copper and silver in slates (Ontagon). Whatever may have been the past history of this section, there can be no question that, given proper metallurgical treatment, these finely-disseminated but pure metals are enormously profitable, and will soon be better known. New deposits are awaiting the prospector, among which iron deposits of the nature of Black Hills ores will no doubt be found. He does not confound this copper mineral with the heavier deposits of Houghton and Keeweenaw, nor expect any new process to compete with their present methods of concentration, but refers only to deposits south of Portage Lake. The North Shore also is tributary, and will develop argentiferous ores abundantly within the next five years, and the great deposits on Lake Huron, heretofore unprofitable from the excessive freights to Europe, will yield largely of sulphide ores, exceedingly valuable for copper and sulphur. Turning west and south-west, lead, zinc, and copper ores are found in Wisconsin and Iowa, around Mineral Point and Dubuque. Missouri offers the choicest of lead, copper, zinc, nickel, and antimonial ores—thousands of tons of which are now lying on the dumps neglected, awaiting treatment near at home. Arkansas is opening up like deposits, but argentiferous as well. Texas has developed very rich copper and silver ores, which will stand shipment as dressed, but if desired can easily be concentrated to 75 per cent. matte, or higher. Arizona ores will soon be seen coming east for market, instead of towards the Pacific; and New Mexico, too, will have large amounts of rebellious ores that cannot be treated advantageously within her borders.

As to the disposal of the products—chemicals and acids from natural processes, and metals—Mr. Adams states that for these there is an unlimited market in Chicago, a trade which is growing every year as the country about her develops. Any amount such works could furnish would be sold for consumption, acids, perhaps, excepted: but for these the trade is large, and will be a growing one. Of course in large manufacture 10 or 20 tons daily could not be absorbed at once in carboy trade, but location would again be advantageous, as large quantities are needed to treat the wastes of fertilising establishments and for use in the industries which a large city fosters.

THE ELECTRIC LIGHT IN FRANCE.—It is announced that the several companies which are separately working the Jablochkoff, the Gramme, the Jamin, and the Werdermann electric systems in France have resolved upon uniting their interests into one general association, the arrangements for which are being carried out under the auspices of one of the leading financial institutions of Paris.

CLEDDAN VALLEY SLATE QUARRIES COMPANY.—A petition has been presented to the High Court of Justice for the winding-up of this undertaking.

MINING ENGINEER REQUIRED FOR A GOLD MINE IN A BRITISH COLONY.
Address, "E." Printing Company (Limited), 121, Fleet-street, E.C., stating terms and qualifications.

A PRACTICAL MINING AGENT, 36, holding good certificates for machinery, desires EMPLOYMENT where he could make himself generally useful. Drawing, Dialling, Assaying, French, and German. Worked nine years underground.
Address, "Miner," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

TO CAPITALISTS.

WANTED, a FEW SUBSCRIBERS TO A SYNDICATE OF £100 SHARES, for taking up some well selected Mines (by a thoroughly practical and eminent authority), soon to be brought to great value, ensuring large profits. Principals only dealt with.
Apply by letter only, in first instance, to "B. A." Messrs. Kingsbury and Co., Lombard House, George Yard, Lombard-street, London, E.C.

CASHIER FOR MINES.

WANTED, to go at once to Mexico, a CASHIER, with a good knowledge of Spanish, who has been accustomed to pay miners and to look after Store and Mining Accounts. Salary to commence with £250 per annum.
Apply by letter, giving references, to Messrs. JOHN TAYLOR and Sons, 6, Queen-street Place, London, E.C.

A MINING ENGINEER, of over twenty years' experience, OPEN to an ENGAGEMENT. Has had the sole management of large Collieries, Ironstone Mines, and Limestone Quarries. No objection to going abroad.
Apply, "H. B. H.," MINING JOURNAL Office, 26, Fleet-street, E.C.

ADVERTISER (aged 31), who has been engaged as CLERK, CASHIER, DIALLER, and MAPPER of large Mines in Cornwall and Wales, DESIRES a SITUATION. Good testimonials.
Address, "Y. Z.," 9, Curzon-street, London, N.

CHEMICAL OR METALLURGICAL PARTNERSHIP.

A N ASSAYER AND ANALYTICAL CHEMIST, of long standing and varied experience, with several thousand pounds capital at his command, is DESIROUS of OBTAINING a PARTNERSHIP in LONDON or the SOUTH, in a first-rate ASSAYING and ANALYTICAL PRACTICE, or in an ESTABLISHED CHEMICAL MANUFACTURE, in which his Chemical Knowledge and Capital would be of service.
Address, "Chemicus," Box 35, Post Office, Middlesbrough.

TO CAPITALISTS.

THE ADVERTISER has TWO LEAD MINING SETTS FOR SALE, in a good district, in WALES. Lead ore can be shown for one mile in length on course of lodes.
Apply, "A. Z.," MINING JOURNAL Office, 26, Fleet-street, E.C.

COPPER MINING SETTS, EAST CORNWALL.

TWO EXTENSIVE AND VALUABLE SETTS, on the junction of the granite and killas, TO BE GRANTED. Large and highly promising lodes are now to be seen, producing ore near the surface. Ample water-power and deep backs to be gained in driving to hill. Railway within two miles. Dues, 1-12th.
For further information, apply to Mr. W. D. KING, Solicitor, Camelford.

A PLATA MINING AND SMELTING COMPANY.
Incorporated with Limited Liability under the Laws of the State of New York.

CAPITAL 200,000 SHARES OF \$10 OR £2 EACH.

The Board of Directors have DECLARED a DIVIDEND of \$15,000, viz. SEVEN AND A HALF CENTS PER SHARE—out of the profits for the month of February, PAYABLE on 1st April, leaving at credit of Reserve Fund, \$54,281-03.
THEODORE BERDELL, Vice-President.
London Office—21, Great Winchester-street, E.C., 17th March, 1881.

OFFICE OF THE ONTARIO SILVER MINING COMPANY,

18, WALL STREET, NEW YORK.

DIVIDEND No. 64.

THE REGULAR MONTHLY DIVIDEND OF FIFTY CENTS. PER SHARE has been DECLARED for FEBRUARY, PAYABLE at the Office of the Transfer Agents, Wells, Fargo, and Co., 65, Broadway, on and after the 15th inst. The above DIVIDEND is PAYABLE in London at our office on all Stock held in England.

EIVHS AND ALLEN, Agents, 99, Cannon-street, E.C.

FRONGOCH MINE (LIMITED).
Notice is hereby given, that the HALF-YEARLY DIVIDEND to December, 1880, at the rate of TEN PER CENT. PER ANNUM, will be PAYABLE upon the shares of the above company on and after MONDAY, the 28th inst.
26, Change Alley, London, 17th March, 1881.

LAS CALDAS FREEHOLD MALACHITE COPPER MINING COMPANY (LIMITED).
Business in these Shares at close Market Prices.

Messrs. WARD AND CO., 184, PALMERSTON BUILDINGS
OLD BROAD STREET, LONDON.

MINE "EL CALLAO," GUAYANA, VENEZUELA.

COUPONS ON SHARES..... 322

Gold in bars produced in the month of January, 1881, and remitted to Messrs. Baring Brothers and Co., London, 3943 15 ozs.

DIVIDEND distributed for each coupon, \$100.

(Signed) A. LICCIONI, President.
(Signed) VICTOR T. GRILLET, Treasurer.

MR W TREGELLAS, 40, BISHOPSGATE STREET WITHIN, E.C.
Deals in all descriptions of STOCKS and SHARES at close market prices, and is always in a position to do business in SANTA BARBARA, PITANGUI, and BRAZILIAN GOLD MINES.

CARTER AND CO., STOCK AND SHARE DEALERS, 8, UNION COURT, OLD BROAD STREET, LONDON.
Strongly recommend—

MONGSTON MANGANESE.

Where the engine-shaft is being rapidly sunk with a full complement of men to unwater the remarkably rich course of manganese passed through for 38 fms. in the 6 in. level, from which large profits will be derived.

EAST DEVON CONSOLS.

Adjoining the South Devon United, where during the past three weeks an extraordinary discovery of copper ore has been made, valued at £180 per fathom. Applications should be made without delay.

MINING SHARES AND OTHER STOCKS.
Enquiries made respecting liquidating or lost-sight of concerns. Press opinions given on new companies (Truth, The World, Pan, Statist, Figaro).
Address, "H.," 23, Grove-road, Bow, London.

THE FORTESCUE (STANNAGWYN) NATIVE TIN, COPPER AND SILVER AND ARSENIC COMPANY (LIMITED).
Particulars of this rich mineral property will be found in the present issue of Sow and Reap, published by Messrs. THOMPSON and SON, Old Town-street, Plymouth, and which will be forwarded on application, post free.

FOR SALE OR HIRE, ONE HUNDRED TO TWO HUNDRED OR MORE 3½ and 4-yard END TIP WAGONS; also several 8-in. cylinder TANK LOCOMOTIVES, and other Contractor's Plant, equal to new.
Apply, JOHN DICKSON, Jun., or A. C. BETTS, New North Works, Bootle, near Liverpool.

MINING SHARES, and HOW TO DEAL IN THEM.
Published for the Author at the MINING JOURNAL Office, 26, Fleet street, E.C.

AUTOMATIC DOUBLE SKIP.—By affixing an angle bar to a rock frame or cross-bar forming part of frame work of double skip, Mr. George Allix, of the Isle of Dogs, makes it automatic filling and discharging. The angled bar is in a piece with other angled bars, forming a kind of triangle from the rock bar, with two jointed links attached, and with their opposite ends jointed to the upper sides of the two half sides of the skip, the lower portion may open, when a sliding catch engages in a notch provided at one end of the angled bar, the sliding catch being suspended by the lift chain or rope when it engages in the notch. The same happens when the catch is permitted to run down the angled bar into a notch at its opposite end, the two half sides being then kept closed. The double skip is practically self-filling and self-discharging, whether the contained material is to be raised or lowered, and a single chain only is used instead of two chains being required as in the known forms of double skips or buckets.

GREAT WHEAL ELEANOR TIN MINE, IN THE PARISH OF NORTH BOVEY, NEAR MORETONHAMPTSTEAD. ADVANTAGEOUS OPPORTUNITY TO CAPITALISTS, MINING SPECULATORS, AND INVESTORS.

The above MINE, with all the MACHINERY, FIXED and WORKING GEAR, CRUSHING and WASHING WORKS, PUMPS and OFFICES, together with all the WORKING TOOLS, &c.

MESSRS. HUSSEY AND SON WILL SELL, BY AUCTION, on the premises, on Saturday, the 2nd day of April, 1881, at Two for Three o'clock in the afternoon precisely (subject to such conditions as will be then and there read), the above

IMPORTANT AND VALUABLE PROPERTY.

Which has an estimated leased working area of 342A. 1R. 1P., held under the Right Honourable the Earl of Devon for a term of 21 years from the 29th day of September, 1874, and is situated in the parish of North Bovey. The Mine has a sunken shaft, called the Engine-shaft, to the depth of 20 fathoms, with two other shafts.

The company has already disposed of over £500 worth of ore, which was pronounced in the markets as of first-class quality. Capt. Tredinnick, who is an experienced mining captain, says they are on an excellent lode.

The Mine is surrounded by good roads, and the Moretonhamstead Railway Station runs within about a mile of it.
For further particulars apply to the Auctioneers, 14, Queen-street, Exeter, where the lease and samples of ore may be seen any day one week prior to the sale. For viewing the Mine, and any particulars connected therewith, apply to Capt. Tredinnick, at the Mine.

The metal already to grass must be taken at a valuation by the purchaser in the usual way.
14, Queen-street, Exeter, 1st February, 1881.

CALIFORNIA GOLD MINE COMPANY (LIMITED).

Mr. THOMAS RICKARD, of the firm of Rickard Brothers, of Queen Victoria-street, and a director of the company, after inspecting the company's property at Colorado, reports by cable as follows:—"California magnificent mine, with ore developments, assuring mills full supply for years; 300 ft. sunk in good ore since Maynard's report; lode strong and good in bottom, auguring well for depth. Completing purchase immediately. Good dividend assured by statutory meeting."—RICKARD.

The Secretary having cabled on receipt of above for still more precise information, the following cable has been received in reply.

"Present milling and mining is on footing of 45 to 50 tons; daily profit to 15th June, £6000. By proposed increased drawing and milling power, profits to 31st December and thereafter will be raised in proportion to increase of product."—RICKARD.

The following telegrams have also been received from Mr. Sands, who has accompanied Mr. Rickard in his survey:—"California much improved since my first examination. Mill in full operation; company will acquire splendid property as going concern paying handsomely."—SANDS.

"Rickard and I arranged for product of mill to go to credit of company from 8th inst.; owner turns over about 1000 tons ore broken and on dump. Profit from milling and mining now belongs to company."—SANDS.

In accordance with the promise given to the present subscribers, the directors deferred the allotment of shares until the arrival of the cabled reports.

The reports being of such a highly satisfactory character, the directors have determined to receive further applications for shares up to four o'clock on Tuesday next, the 22nd inst.

J. CRUIKSHANK, Secretary.
7, Union Court, Old Broad-street, E.C., March 18, 1881.

LEASING OF IRON MINES IN TUSCANY (ITALY).

Notice is hereby given that a SECOND and DEFINITIVE AUCTION for the TRIENNIAL LEASING of the IRON MINES in the Island of Elba, and of the IRON FOUNDRIES in TUSCANY, will be HELD on the 31st inst. only, at the Intendenza di Finanze, in Rome, no adjudication having taken place at that held on the 7th inst., no tender having reached the minimum fixed by the Italian Government.

A deposit of 300,000 lire is required to be made at the Tesoreria Provinciale of Rome, in order to compete in the above tender.

ROYAL ITALIAN CONSULATE, 31, Old Jewry, E.C.

ROBERT A. HEATH, Italian Consul General.

CROW'S HOUSE ESTATE.

In the township of THORNTON, parish of KELLOE, in the county of DURHAM

PRELIMINARY ANNOUNCEMENT.

THE ABOVE VALUABLE FREEHOLD ESTATE, comprising

355 acres or thereabouts, together with the COAL and other ROYALTIES, will be OFFERED, BY PUBLIC AUCTION, in the month of April next, by Mr. THOMAS WETHERELL, at the Three Tuns Hotel, Durham, in Two Lots, viz. 1. The FARMS, FARMHOUSES, and BUILDINGS the first lot; and the MINERALS the second lot.

Further particulars will appear in future advertisements, and plans and conditions of sale will be ready for issue by the 20th of March, to be had on application to Messrs. MAULETT BROTHERS, Chartered Accountants, 21, Collingwood-street, Newcastle-on-Tyne; Mr. THOMAS WETHERELL, Auctioneer, Durham; and of D. E. STANFORD, Esq., Solicitor, 21, Collingwood-street, Newcastle-on-Tyne.

NORTH WALES.

PRELIMINARY ANNOUNCEMENT OF SALE OF THE VALUABLE

SLATE PROPERTY KNOWN AS THE

CROESOR NEW SLATE QUARRY,

LLANFROTHERN, MERIONETHSHIRE.

THIS VALUABLE PROPERTY, consisting of about TWO HUNDRED ACRES OF QUARRY LAND, with QUARRY WORKS, PLANT, MACHINERY, MILLS, WORKSHOPS, BARRACKS, MANAGER'S HOUSE, and EIGHT WORKMEN'S COTTAGES, will be OFFERED FOR SALE, BY PUBLIC AUCTION, in APRIL next.

The property is held for an unexpired term of 35 years, subject to a nominal dead rent of £1 1s. per annum, and no royalty.

The lease contains a covenant for renewal at the end of that term for 20 years at a moderate royalty.

The date of sale and further particulars will appear in future advertisements.

For particulars, apply to Mr. J. E. JONES, 16, Bank-place, Portmadoc.

TO BE SOLD, BY PRIVATE TREATY, a LEAD MINE in the County of FLINT. Good ore to work on; rocks of solid ore to be seen over 2 cwt.

A BARGAIN, if secured at once.

Apply to "J. R. W.," Red Lion Hotel, Holywell.

February 28, 1881.

SURPLUS MACHINERY FOR SALE.

ONE DIRECT-ACTING BULL ENGINE, 80 in. cylinder, 11 ft. stroke. SIX 3-1/2-HP. STEAM BOILERS, 30 ft. by 5 ft. diameter, with mountings complete, and connections for same.

ONE 24 in. WINDING BEAM ENGINE, with 12 ft. drum.

ONE 24 in. PUMPING BEAM ENGINE, with pumping shaft, crank, and gearing wheels.

For further particulars, apply to Mr. JAMES HOGG, Govan Ironworks, Glasgow.

WIVELISCOMBE, SOMERSET.

TO BE LET, BY TENDER, for a Term to be agreed upon, from Lady-day, 1881, all that EXCELLENT SLATE QUARRY, called

OAKHAMPTON QUARRY,

Situate in the parish of WIVELISCOMBE, in the county of Somerset, which for many years past has been worked by the WIVELISCOMBE SLATE COMPANY (LIMITED), whose term expires at Lady-day next. The premises comprise a house for the Manager, and 45 A. 2 R. 37 P. of LAND.

To view the quarry, application to be made to HENRY BELLEW, Esq., of Oakhampton House, Wiveliscombe, the owner; and for further particulars, and to inspect the draft of the proposed lease, apply to Mr. A. K. PAYNE, Solicitor, Milverton, Somerset, to whom Tenders in writing should be sent on or before the 28th day of February, 1881.

Dated Milverton, 11th January, 1881.

FOR SALE, a SEMI-PORTABLE PIT SINKING, COAL WINDING, and PUMPING ENGINE, double 9½ in. cylinder, fitted with link-motion reversing gear, mounted on a multitubular boiler, with Bowling iron fire-box.

Also WINDING GEAR, drum 5 ft. diameter, brake, and PUMPING GEAR complete, ready for immediate delivery.

To be seen at—

BARROWS AND STEWART'S WORKS, BANBURY, OXON.

ALEXANDER SMITH, M.Inst.C.E., CONSULTING

ENGINEER and VALUER of IRONWORKS,

MINING, RAILWAY, ENGINEERING, and other PROPERTY,

PLANT, and MACHINERY,

1, PRIORY STREET, DUDLEY.

Mr. SMITH has been retained for nearly 20 years by some of the most prominent firms, and has conducted many of the largest valuations that have taken place in the kingdom.

Valuations for Stock Taking or any other purpose upon very reasonable terms.

THE NEW PENROSE TIN AND COPPER MINING COMPANY (LIMITED).

The shares in this mine are recommended for immediate purchase at the present low price—viz., 20s. each. The chances of success in this mine are greater than in any property in Cornwall. Any week a rich lode may be cut, when the shares will probably advance to a very high price.

Investors desirous of securing an interest should apply at once to the secretaries, Messrs. THOMPSON and SON, 14, Old Town-street, Plymouth.

MR. CHARLES J. SIMS,

MINING AGENT, STOCK AND SHARE DEALER,

2, DRAPER'S GARDENS,

LONDON, E.C.

THE "DIFFERENTIAL" PUMPING ENGINE (DAVEY'S PATENT),

FOR DRAINING MINES, WATER SUPPLY OF TOWNS, IRRIGATION, SUPPLYING DOCKS, PUMPING SEWAGE, and GENERAL PUMPING PURPOSES.

HATHORN, DAVEY, AND CO.,
LEEDS.

HATHORN, DAVEY, and Co. have Patterns of "Differential" Engines of all sizes, from 5 to 500-horse power, and have facilities for supplying very powerful Engines and Pumps at a short notice.

See Illustrated Advertisement every alternate week.

STONE BREAKERS AND CRUSHING MACHINERY for REDUCING to any degree of fineness all kinds of ORES, QUARTZ, COAL, CEMENT, PAINT, &c.

Particulars and specifications on application to "Quartz," MINING JOURNAL Office, 26, Fleet-street, London.

SILVER MEDALS AWARDED AT CORNWALL POLYTECHNIC 1872 AND 1876.

THE WELL-KNOWN PATENT SELF-ACTING ORE DRESSING MACHINERY, as in operation at most of the large Mines in the Kingdom and abroad, is now supplied solely by THE PATENTEE AND MANUFACTURER, Mr. GEORGE GREEN, Mining Engineer, AT GREATLY REDUCED PRICES; also all descriptions of Mining Machinery, including

GOLD AND SILVER AMALGAMATING MACHINERY, complete Stamp Mills, Water Wheels, Steam Engines, &c.

ROLLER SHELLS FOR CRUSHING MILLS—a speciality.

SPECIAL DESIGNS FOR EXPORT AND DIFFICULT TRANSIT.

Prices and particulars on application to the Manufactory,

ABERYSTWTH, SOUTH WALES.

Mining Correspondence.

BRITISH MINES.

ASSHETON.—Joseph Garland, March 18: Driving is proceeding regularly in the 60, east of boundary shaft; the lode has not been taken down since date of last report. In the 92, east of boundary shaft, the ground has improved, and the driving has been re-set at 44. 10s. per fathom; the lode is about 2 ft. wide—hard and unproductive at present.

BEDFORD UNITED.—R. Goldworthy, March 18: Bridge Lode: Good progress is being made in sinking McCallan's shaft, and I am pleased to say the lode has a very fine appearance, and composed chiefly of gossan, arsenical-mundie, with grey and black ore, worth full 25s. per fathom.—North Lode: The lode in the 127 is again improved, now worth 20s. per fathom. In the 115 east we are still driving north. The stopes, on the whole, are looking well.

—March 17: I have the pleasure to inform you that the Bridge lode continues to look well, and has a very fine appearance, producing black and grey ores, and gradually improving in value now worth 25s. per fathom; altogether a splendid lode. The 127 in the north lode has also improved, being now valued at 20s. per fathom. The future prospects of the mine are most encouraging.

BELL VEAN.—J. Bray, March 11: We have suspended the driving of the end west of the cross-course for the present, and shall put the men to fix air-pipes from Mitchell's shaft to Bell shaft, in order to have sufficient air to prove the lodes in that direction. We have fixed the engine on Gobbin's shaft, and shall now commence to put in the rods, balance-bob, &c., with all speed. The men are getting on pretty well with timbering Gobbin's shaft, which will be completed to the adit level shortly.

BLAEN CAELAN.—J. Pell, March 17: Our progress has been greatly hindered by water in the 30, but I hope it will not occur again. We shall be able to draw shaft and resume stope in the 30 next Tuesday, when dressing operation will recommence; all our machinery is in good working order, and next week I will give you value of stope.

BLUE HILLS.—S. Bennetts, R. Harris, March 12: The lode in the 90 east end is of a most promising kind, and worth 25s. per fathom. The 42, west of the Blue Burrow shaft, is worth 8s. per fathom. The 42 east is producing low quality tinstuff, but not of much value. In the 30 east the lode is worth 8s. per fathom.

BWLCH UNITED.—W. Northey, March 17: The lode in the rise in the back of the 30 is improving, and is now carrying a rich lode ore for the whole length of the rise. The new stope in the bottom of the 50 is worth 15 cwt. of lead ore per fathom. I have stopped the driving on the slide in the north side at the 50, and I have placed the men to drive a cross-cut south, where I anticipate to find the lode. I intend to put two men to bore a hole in the cross-cut driven to cut the north lode at the 40 to see if the main lode has been met with. Ritchie's shaft is now undergoing repair, therefore I cannot draw orestuff for a few days. All the machinery is working well, and the water is down 5 fms. below the 90, and the dressing is going on at full speed.

CAMBRIAN MINES.—Capt. W. H. Richards, March 15: Esgrair Ffraith; Eastern Shaft: In the 128 yard level east there is no material change since last reported; the lode is producing 2 tons of copper ore per yard. The winze sinking below the 108 yard level east will yield 10 cwt. of lead and copper ore per yard. This winze is getting spare for sinking, the men having to contend with a good deal of water. The 86 yard level east is without change, the forebreast showing good spots of copper and lead. In the 70 yard level the lode in the forebreast is principally composed of gossan, spar, and carbonate of lime, with green carbonate and yellow copper ore intermixed—altogether a kindly ore for improvement. I am sending off our sampling, computed at 50 tons of copper; this will be forwarded to station during the week.

CARNARVON.—John Roberts, W. Dwyer, March 16: Monthly Report: We have driven in the 90 during the past month a little over 2 fms. We have had on the hanging side of the lode a leader of rich copper from 6 to 8 in. wide; it has improved very much since the commencement of the month. Last week we cut the water in the old sump, and were obliged to suspend driving to fix the bottom lift at the new shaft lest that the whole of the water should come away and drown the small pumps. We shall finish this to-morrow, and the men will resume driving till such time that the water shall get too quick to continue, and then we shall immediately set to change the pumps from the old shaft to the new altogether. It appears still by the plan enclosed that the copper in the 90 is another distinct bunch to that in the 30; if this is so we have a new lode from this to surface. We did hope to be able to take down the lode in time to advise you to-morrow, but we cannot possibly do so now, but we will as soon as it is done. The stope at the 46, or between this and the 36, is much of the same value as we have reported it during the month. A large lode with a good leader of copper on the hanging side and patches of rich copper through the lode. We expect that we shall finish repairing the crusher in a few days.

CATHEDRAL CONSOLS.—S. Davey, S. Davey, jun., March 17: We are pleased to inform you good progress is being made with the clearing of the adit level south. Since our last report we have cleared 20 fms. west from Rawson's shaft, and about 30 fms. south. In the last 3 or 4 fms. driving we have let down a large quantity of water, with a mixture of blende; the presence of the latter is always looked upon as indicating the proximity of large deposits of lead. The lode out of the north cross-cut in the 112 west has a strong appearance, with a greater breadth of spar and lead than we have yet seen, and promises still further improvement.

DENBIGHSHIRE CONSOLIDATED.—A. Francis, R. Prince, March 16: In the 78 west we have intersected the course of ore proved in the upper workings, and have obtained therefrom some fine blocks of lead; we may now expect the yield to be regular and increasing. The 112 main lode east has improved since last report, and judging from its present appearance we shall soon be in a good course of lead ore, yielding capably; the lode is quite 7 ft. wide. No. 3 rise shows some nice ore, with a mixture of blende; the presence of the latter is always looked upon as indicating the proximity of large deposits of lead. The lode out of the north cross-cut in the 112 west has a strong appearance, with a greater breadth of spar and lead than we have yet seen, and promises still further improvement.

DERWENT.—J. Morphet, March 17: The several stopes on Middle vein in the great limestone, also the 93 on North vein, west of Westgarth's, having for a week been inaccessible owing to the enormous floods since the breaking up of the snowstorm, and there has been no change in them since last reported upon. The water in the deep levels is gradually subsiding. Westgarth's will be fork to-morrow or Saturday, and Jeffries some time next week.—Sun Vein: The 70 where we are stopping down the backs, remains much the same. The cross-cut at the 78, north from Westgarth's, is passing through some sparry strings, and the 68 cross-cut, going in the same direction, has passed through another strong branch or vein since it was re-started. The stope over the 74, west of Westgarth's, yields some 17 cwt. ore per fathom; vein 2 ft. wide. We hope by Monday next to resume drawing and dressing.

DERISBY MORNING.—J. Roberts, W. Sandoe, March 15: The cross-cut at No. 6 is better than it has been for some time, and the lode is still very nice spar in it and spots of lead. The stope at No. 5 are very much of the same value as we reported last week. They are now in good condition for working, and we are extracting large quantities of stuff. The dressing is being pushed forward as energetically as possible.

DEVON GREAT CONSOLS.—Isaac Richards, March 17: Wheal Josiah: In the 144, east of Hinchin's shaft, on the south lode, has been communicated with Penrose's winze in the bottom of the 144 west of Agnes's shaft on the south lode. The lode at the point of communication is 3 ft. wide, composed of capel, quartz, peach, and small quantities of copper and mundie ores. This communication has secured good ventilation in this part of the mine, and will enable us to turn a portion of the water from Agnes's shaft to Richards's shaft, Agnes's wheel being at present rather over-burdened.—Wheal Emma: Inclined Shaft: In the 190 east, east of Daw's cross-cut, the drive is being continued by the side of the lode, the ground being favourable for progress. In the 137 east, east of Friend's cross-cut, the lode is 5 ft. wide, and continues of the same very promising character and producing some good quality copper and mundie ores.—New Shaft, New South Lode: In the 205 west, on the north part of the lode, the lode is 4 ft. wide, composed of capel, quartz, peach, mundie and a small quantity of copper ore. In the 175 east, on the north part of the lode, the lode is 3 ft. wide, composed of capel, quartz, peach, and small quantities of copper and mundie ores. In the 115 east the lode is 3 ft. wide, composed of capel, quartz, peach, mundie, and a little copper ore. In the cross-cut north at the 100 a small branch 4 in. wide, consisting principally of quartz with a little copper ore has been intersected. The drive is still being continued, the ground proving favourable for progress. In the 90 east the lode is 2 ft. wide, and producing a little of both copper and mundie ore.—Railway Shaft: In the Railway shaft, now 6 fms. 4 ft. below the 190, the ground continues without alteration; tolerably favourable for progress. In the 190 west, on the north part of the lode, the lode is 2 1/2 ft. wide, composed of capel, quartz, peach, mundie, and some copper ore. In James's winze, below the 175 east, the lode is 4 ft. wide, and worth 3 tons of copper ore and 2 tons of mundie per fathom. In the 171 west, on the south part of the lode, the lode is 4 ft. wide, and worth 2 tons of copper ore or 6s., and 2 tons of mundie per fathom. In Major's rise, in the back of the 175 west, on the north part of the lode, the lode is 4 1/2 ft. wide, and worth 5 tons of copper ore or 15s., and 4 tons of mundie per fathom. In the 160 west, on the south part of the lode, the lode is 5 ft. wide, and producing a little copper and mundie ore. In Short's winze, in the bottom of the 160, west on the north part of the lode, the lode is 4 ft. wide, and worth 3 tons of copper ore or 9s., and 3 tons of mundie per fathom. In Clarke's winze, in the bottom of the 145, the lode is 4 ft. wide, producing small quantities of copper and mundie ores.—Watson's: In the engine-shaft, now down 5 fms. 5 ft. below the 76, the ground continues favourable for progress. In the 76 west the lode is 2 ft. wide, composed of capel, quartz, peach, mundie, and a little copper ore.

DEVON GREAT UNITED.—I. Richards, March 17: I am very pleased to inform you that we have started our pumping machinery at Willeford's shaft, which works admirably. In the 50, west of Watson's on the Capel Tor lode, the lode is 3 ft. wide, of a promising character, being composed of very fine capel, quartz, mundie, and some copper ore of good quality, and from present indications an early improvement may be expected. In the cross-cut south at the 20, west of Willeford's shaft, the ground continues favourable for progress, and of a very congenial character for mineral.

EAST BOTALLACK.—G. H. Eustice, J. Hollow, T. Trahair, March 16: We beg to hand you the following report of the work done since the meeting in November last:—The engine, which was then being erected, and which, together with the necessary buildings in connection therewith, was reported on November 15th to be in a forward state, was set to work on the 26th of that month in a very satisfactory manner, and quickly drained the water to 14 fms. below the adit level, at which point Oates's engine-shaft was found to be full of debris, thrown into it by the former workers on their abandoning the mine. The work of clearing up the shaft was then proceeded with until the bottom was reached, a further distance of 7 1/2 fms. or 9 ft. below the 20. The shaft has since been cased and divided, ladder-way and skip-rope fixed from surface to the bottom. The shaft being a perpendicular one, and intersecting the lode at this point, it was necessary to fix an angle-bob here to break the underlie previous to commencing the sinking of the shaft. The cutting of the ground for this angle-bob is now completed, and the bob is being prepared at the surface, and will at once be fixed in its place underground. The mine having been drained by a drawing-lift, it now becomes advisable that this should be replaced by a plunger-lift, the materials for which are now on the mine, and will be immediately fixed at the bottom of the perpendicular shaft, and connected to the balance-bob at the surface by a complete new set of pitch pine main rods. When this is completed we shall then commence the sinking of the engine-shaft on the course of the lode by a full crew of men, in order to reach the junction of this and the 20th lode as quickly as possible. We also intend cleaning the diagonal shaft

to the 20 for the purposes of ventilation and fixing a permanent ladder way. The 20 we found driven 44 fms. east of engine-shaft, the whole of which distance has been cleared and secured. We have been into the level west of the shaft a distance of 38 fms., which has not yet been cleared. The lode has been extensively worked by the former workers in the back of this level, as well as in the bottom, they having followed the tin down as deep as they could for the water; and to work the mine in a mining-like manner, and take the tin out of the vein in the most economical way, it will be necessary to sink the engine-shaft and drive deeper levels into it. We have also fixed, during the past month, a small plunger-lift at the adit level for the purpose of pumping water at such times as may be required for feeding the engine. We are pleased to state that the views we have often expressed are considerably strengthened as to the ultimate result to be obtained, seeing that the lode at the adit level was a well-defined one, and containing a little tin; at the 20 it is larger, of a more kindly character, and containing more tin, and that in sinking the 9 ft. only below the level it shows a little further improvement, we cannot but think that a reasonable depth only is required to make it a lasting and remunerative mine.

EAST CARADON.—J. Kellow, March 15: To drive the cross-cut south at the 170, 1 fm. stent, by nine men, at 25s.; it was driven 1 fm. To drive the 130 east on lode, 1 fm. stent, by four men, at 17s.; it measured 1 fm. 1 ft. 6 in.; it is 2 ft. wide, chiefly quartz and mundie, intermixed with some spots of copper ore.—Fawcett Lode: To drive the 90 east, 1 fm. stent, by six men, at 16s.; it was driven 1 fm. 2 ft. 6 in.; the lode is 15 in. wide, composed of peach and quartz, with a little ore intermixed, and of an encouraging appearance. To drive the 80 north on cross-course towards this lode, 7 fms. stent, by six men, at 42. 15s.; it measured 3 fms. 3 ft.; the ore is of a favourable quality. To drive the 70 west, 1 fm. stent, by four men, at 10s.; it was driven 3 fms. 1 ft. 6 in.; the lode is small, producing occasional stones of ore. To drive the 60 west, 6 fms. stent, by six men, at 44. 10s.; it measured 6 fms. saving work. East in this level, 2 fms. stent, by two men, at 44. 10s.; it was driven 2 fms. 1 ft. 6 in. here, and the lode of a similar character. To drive west from the main cross-cut, in this level, 2 fms. stent, by six men, at 16s.; it measured 1 fm. 4 ft. 6 in., the lode is 1 ft. wide, chiefly quartz. To drive west from the main cross-cut, in the 50 fm. level, 2 fms. stent, by six men, at 15s.; it was driven 1 fm. 4 ft. 6 in., the lode is 2 ft. wide, and producing some good stones of ore. We sampled March 14 a parcel of ore, about 30 tons, for sale on March 24.

EAST CHIVERTON.—R. Southey, March 16: The lode in the 90, west of shaft, maintains its size and value, as reported at the meeting held last week.

EAST CRAVEN MOOR.—D. Williams, March 17: The 76 west has been extended from shaft 20 fms. 3 ft. The ground here has become much easier to work, the vein porous and more congenial for the production of lead ore; at present 3 ft. wide, composed chiefly of spar, gossan, and branches of lead ore: worth 18 cwt. per fathom; a stope in the back is worth for lead ore 15 cwt. per fathom. The 76 east has been extended from shaft 16 fms. in a vein 2 ft. wide, carrying spar, larytes, and a mixture of lead ore, being good saving work for dressing. We have not commenced stope the ore ground in back of this level, as the stulls are all full of leadstuff, accumulated during the severe frosty weather. The 65 east is in from shaft 9 fms. in a vein 2 ft. wide and producing stone of lead ore. A stope in back of level, worth 15 cwt. of lead ore per fathom. A stope in back of the 65 west of shaft is worth 12 cwt. of lead ore per fathom. A stope in back of the 54, east of shaft, in a vein 2 ft. wide, and worth for lead ore 15 cwt. per fathom, wrought at 80s. per ton of dressed ore delivered in the ore bin. A stope in back of the 54, west of shaft, worth 35 cwt. of lead ore per fathom. The shaft was driven on the 54, west of shaft, in 25 fms. 3 ft. We are continually meeting here with branches of spar which become stronger and richer in ore, and letting out water freely as we approach the main lode in advance, which indications, coupled with the general character of the face of our cross-cut, and our knowledge that at such intersections the main lodes of this district are invariably found productive. I have every confidence of a tangible discovery of ore here at an early date. The 42 east upon No. 1 vein is in from cross-cut 25 fms. A stope in back of the 30 at 100s. per ton of dressed ore. On surface we are taking advantage of the change of weather, and are pushing on dressing operations as much as possible, and have already sent down to the mill about 20 tons of lead ore.

EAST DARREN.—Thomas Garland, March 16: The lode in the 92 end west, on south lode, is in a hard strong lode, much improved for lead ore; while the 56 east has in the past two months laid open fair stopeing ground. All machinery is in good repair. Drawing and dressing progressing regularly.

EAST HERODSFOT.—T. H. Bennett, March 17: Since our last we have extended beyond the cross-course, which heaved the lode about 3 1/2 ft. to the west; whilst passing through it one lode was disordered. It has, however, already recovered its former bearing, a regular and defined wall, and is quite 3 ft. wide, composed of quartz, capel, and iron, interspersed with mundie and lead ore, very promising lode. Last evening, in a rough or hollow part, by the aid of a miner's scraper, we took two small tones of lead and copper ore, almost solid, about the size of a fowl's egg. We regard this as an exceedingly good omen, and feel perfectly satisfied that we are not far distant from a valuable lode. Those indications are making us very anxious to get forward. The drive at present is being pushed by six men, and as we proceed with this and deeper levels into the hill we have no doubt of opening up a valuable lode and making a profitable mine.

EAST ROMAN GRAVELS.—Arthur Waters, March 17: The ends and stope here are without change since my full report of last week. We are pushing on with the last shaft lead ore.

EAST WHEAL CREBOR.—George Rowe, March 16: The south lode in the 70, west of engine-shaft, is 2 ft. wide, producing fine stones of ore and arsenical mundie. The north lode at the 70, west of slide, is getting into more settled ground as we get off from the influence of the cross-course, and improving in character, with fine stones of ore. The lode in the 70, east of cross-cut, is improving, with good stones of ore and very strong arsenical mundie. The lode in the stope below the 60 is worth 15s. per fathom.

GAWTON COPEL.—G. Rowe, March 16: We have intersected a new vein in the 117 east, which has affected the lode, and is now worth 20s. per fathom. The lode in the stope in back of the 117 is worth 15s. per fathom. The lode in the 105 east is 6 ft. wide, improving, yielding 8 tons of arsenical mundie per fathom. The lode in the stope in bottom of the 105, east of winze, is worth 20s. per fathom. No. 2 stope, in bottom of the same level (the 105) is worth 15s. per fathom. Our new arsenic works are progressing very satisfactorily.

GLASGOW CARADON CONSOLS.—William Taylor, Wm. J. Taylor, March 15: We expected to finish the sinking of the engine-shaft to the 114 without further delay, but since we cut a south branch with an increase of water we have had to do this, which is now completed, and the remaining few feet to sink will be pushed on as fast as possible. We have cut nothing further in the 102 cross-cut south; ground a little harder. The part of the lode carried in the 102 west is producing stones of ore: all the lode not taken down. The new winze in the bottom of the 90 is worth 9s. per fathom; the winze in the bottom of the 78 is worth 8s. per fathom. The lode is looking better here and does not appear to have been seen in the 99; the further sinking will prove this in a short time. There is very little alteration in the stope and pitches; they remain about the same value as last reported; everything is being pushed on, with the best success as possible.

GOODEVERE.—R. Knott, March 15: The cross-cut from the deep adit to cut the south lode is being pushed on with all haste, and the ground is good for driving. The lode in the rise in the back of the shallow adit is 5 ft. wide—all good tinwork for stamps.

GORSIEDD AND MERLYN CONSOLS.—W. Edwards, March 16: In the 70 east level north cross-cut the beds are still dipping down northwards, with branches of shale intermixed. The ground certainly looks more promising this morning than it has done for some time. I firmly believe my expectations regarding this level, and the most important and valuable part of the mine, will be met in the 90 driving west, only recently started, where a regular improvement takes place as we drive on the course of the lode, the composition of which is spar, blende, and lead. The latter is now getting more solid, and is worth 8 cwt. to the fathom. I am exceedingly pleased with the appearance of the ground, and look forward with confidence to the result. The south driving on the top of the rise looks well, and there is some very rich lead. The four men here will have raised over 7 tons of lead this month. The lode is worth more than 2 tons of lead to the fathom. No. 1 pitch in the 70 east is worth about 1 ton of lead to the fathom; No. 2 pitch is worth 14 cwt. to the fathom. No. 3 pitch is worth 10 cwt. to the fathom. The mine looks well.

GREAT HOLWAY.—W. T. Harris, March 15: Roskell's Shaft: The ground in the 110 cross-cut is without any particular change; the joints of carbonate of lime still continue, with occasional cubes of lead and a little blende. Another favourable feature is that the lode will soon be intersected. The present rate of progress is about 6 ft. per week. In the 80 cross-cut, driving south, the ground is favourable for progress. In a few days we purpose applying the rock-drill to facilitate the intersection of the south part of the lode.—Brammock Shaft: The arrangement for winding the stuff by the portable engine at Garden shaft works admirably, and we are very busy bringing the tributors' stuff to surface. The pitch in bottom of the 40 east has much improved, now worth 1 ton of lead ore and 1 ton of blende per fathom. The sinking of the winze below this level, on the north lode, is making satisfactory progress. We expect to communicate with the 100 before the end of this week. The pitch in back of the 100 is producing 15 cwt. of lead and 1 ton of blende per fathom, and very promising for further improvements.—Garden Shaft: No. 2, in the 55 east and bottom of the level, maintains promising appearance, and continues worth 1 1/2 ton of lead and 1 1/2 ton of blende per fathom, and opening up some nice ground for stopeing. The ground in the cross-cut driving north and west of the shaft is hard, and but slight progress is being made. We expect a change of weather, which will also intersect the lode.—Partridge Shaft: The pitch in back of the adit is worth 10 cwt. of lead and 1 ton of blende per fathom.—Level Engine: In No. 3 pitch, in back of the 60, all the stuff has been brought to surface, and the men have retaken it at 40s. per ton for lead and 20s. per ton for blende. Within the last day or two the lode has much improved, now worth 4 tons of lead per fathom—a splendid looking lode. Nos. 1 and 2 pitches are still idle, and the stuff not removed. We hope to begin winding next week. The surface work is well now completed, and dressing has had all possible attention. On Monday last we sold 16 tons of lead ore, at 11s. 5s. per ton, and shall have a similar quantity next in a few days.

GREAT LAXEY.—Wm. H. Rowe, March 16: No change of importance to report of any point in the deep winze. Both the 259 and 235 ends, driving north of Welsh shaft, continue comparatively unproductive, but each are in close proximity to better ground, and an improvement may be looked for at any moment. The lode being unusually wide only a part is being carried by the 247 north, which is at present worth 22s. per fathom, and offering to improve. The stope over this level, and in this part of the mine, are without change to notice.—Dumbells: In the 230 end, driving north, the lode is improving for ore, and now evidently come up with the run of ore ground passed through in the levels above; lode at present worth 20s. per fathom. The 140 end is also improving; lode showing good spots of ore. Our general report being so close at hand there is no occasion to refer to the various points in detail.

GREAT WEST CHIVERTON.—John Curtis, March 15: There is no material change to notice in the lode since last report. We have just cut into a branch in the north side of the level, which will form a junction with the lode in a little further driving.

GWERN-Y-MYNYDD.—A. Francis, March 17: Deborah: We are now sinking satisfactorily, and expect to get the shaft in the vein in about seven weeks, until which time we cannot expect bringing the tributors' stuff to surface. The pitch on this property. Good ore has already been discovered not far from our workings, to which we shall at once drive in the vein when the shaft is down, and every yard we drive will be an excellent trial both for ore and the main fault.

HERODSFOT.—P. Temby, J. A. Temby, March 16: Since the last general

meeting we have nothing particularly new to report in any part of the mine. The 215 continues to show a rich course of ore. The ends and stope at the different levels are yielding their usual quantities of ore. The western part of the lode (worked by tributors at the 190) has greatly improved. We have commenced a cross-cut at the 175, which we expect will intersect it in about 3 fms. driving. This part of the lode has not been above the 190. At the 205 north the stope are worth 20 cwt. of ore per fathom in the part of the lode.

HINGSTON DOWN.—T. Richards, March 16: No. 1 lode in the deep adit level, east of the cross-cut, is at present somewhat disordered and divided into branches, which contain occasional stones of black and yellow copper ore; we are now opening southward to ascertain if any portion of the lode is gone off in that direction. No. 2 lode in the deep adit level, east of the south cross-cut, and east of the cross-course, is without change. Good progress is being made in the engine-shaft sinking below the deep adit level, and the lode continues to produce a little good saving work for copper ore.

INDLAN QUEEN CONSOLS.—Wm. Hooper, March 14: At the adit level the tributors' pitch is much the same. The tributors at the 10 have had some splendid work, and are opening more ground for stopeing. We have found rich work at the 20, and have some good specimens of tin now at surface, which came from here. The shaftmen are making good progress in sinking the engine-shaft from the 30 to the 40, which is now down 53 ft. A few days since we cut another lode, this, like all the other lodes that have been cut, is dipping towards the rich deposit of tin, and there is every reason to believe when the shaft is down and a cross-cut driven we shall have one of the richest mines in the country. The machinery is working well, and everything going on satisfactorily.

KILFRIBBIN.—J. Mitchell, March 15: The lode which is come in Hawke's shaft is from 5 to 6 ft. wide, producing good stones of tin and copper ore, a very promising looking lode. The 10, driving west of this shaft, on the north lode, is also producing rich stones of tin. In the new shaft sinking below the adit the lode is 3 ft. wide, producing a little tinstone, but not enough to value. The adit level driving west of new shaft is suspended for the present; the men are rising in the back to communicate with the shallow adit for ventilation. The lode in the shallow adit level is 3 ft. wide, and is also producing good stones of tin. The other bargains are just the same as last reported.

LADY BERTHA UNITED.—T. Neill, March 17: Since my last report we have been clearing and securing the 30 fm. level so as to enable us to lay down tram-roads; and have now set the same to be done forthwith, so that the tramming of the mundie shall be brought to shaft ready for hauling. We have also completed the skip road. In the stope in the back of the 30, which I have set to four men, the lode is 5 ft. wide, and worth 12 tons of mundie per fathom; a fine productive lode. There are other stopes in this level, which we are getting ready for stopeing on Saturday. The stope in the back of the 20 west is worth 10 tons per fathom. The stope in the 20 east is worth 8 to 10 tons per fathom. All the stopes are producing large quantities of good mundie, &c.; and as soon as the engineers finish the erecting of the hauling machinery we shall immediately commence drawing the mundie, &c., to surface for dressing. Saturday being our pay and setting day, a full report shall be sent you.

LEAD ERA.—J. A. Ede, March 17: The men have been employed this week clearing the water-course running past the entrance to the adit, so that very little progress has been made in trying the places noticed in my last.

LEADHILLS.—A. Waters, March 17: Brown Vein: Gripp's adit, going north of Glengarn engine-shaft, is without ore to notice. Having passed the valley and got into the hill ground we are disappointed at not finding productive ground here this, still this drive north has always been considered a trial of great importance, and we are not yet without hope of making a good discovery by the exercise of perseverance. The pitch in the back of the north shaft, by two men, at 90s. per ton, is worth 15 cwt. per fathom. No. 1 pitch, in Gripp's adit south, by two men, at 90s. per ton, is worth 13 cwt. per fathom. No. 2 pitch, south of ditto, by two men, at 90s. per ton, is worth 13 cwt. per fm. —Hopeful Vein: The pitch in the back of Gripp's, north of the above shaft, in three men, at 80s. per ton, is worth 18 cwt. per fathom.—East Stay Voyage Vein: The stope below Gripp's, south of Miner's cross-cut, is worth 1 ton per fathom.—Brown's Vein: The men cutting pit at the 85 preparatory to sinking Jeffrey's shaft are making fair progress. The 85, north of shaft, is in a sparry lode, and yielding stones of ore. The same remarks apply to the 85, going south of same shaft. The 70, going north of shaft, is worth 22 cwt. per ton. The 70 south is without ore to value. The stope below this level south is worth 30 cwt. per fathom. The stope above the 70 south is worth 13 cwt. per fathom. Pitch above the 70 south, by two men, at 90s. per ton, is worth 14 cwt. per fm. Pitch above the 55 south, by four men, at 90s. per ton, is worth 13 cwt. per fm. The 41, south of shaft, has passed through a good but short bunch of lead ore, but though wide and promising the lode at present is without ore to value. The winze (Cameron's) below the 20 is down 10 fms.; and we are now driving north at the 30 in a lode worth 3 1/2 tons of lead ore per fathom. The lode here is 10 ft. wide, and we expect the 41 will reach this run of ground by the end of this month. The stope below the 20, north of Wilson's shaft, is worth 3 1/2 tons per fathom. Wilson's shaft, below the 20, shows a lode charged with stones of ore, but not to value. The stope above the 20, north of Moffat's winze, is worth 16 cwt. per fathom. The stope in the same level, south of the winze, is worth 2 1/2 tons per fathom. The stope above the 10, south of said winze, is worth 1 1/2 ton per fathom.—Ralk Vein: Gripp's level, going west on string, south of Reid's shaft, is worth 6 cwt. per fathom. Gripp's adit, going north of Watson's shaft, under old mine, is without ore to pay. The pitch above this level, south of shaft, by four men, at 90s. per ton, is worth 14 cwt. per fathom.—Jeffrey's Vein: The 19, north-west of junction of the stope of lead ore. The stope in this level is worth 3 tons per fathom. The stope above Gripp's is worth 18 carats per fathom. Pitch above ditto, north-west, by two men, at 90s. per ton, is worth 13 cwt. per fathom.—P. S. Lead ore dressed for market, 333 tons 11 cwt.; pig-lead on hand (9221 pigs), 461 tons 1 cwt.

MARKE VALLEY.—Wm. George, Francis Renals, March 17: During the past week we have taken down a portion of the lode in the 90 west, which continues to yield 1 ton of ore per fathom. In the rise above this level the lode has not been taken down. In the rise in the back of the 50 the lode is worth 1 1/2 ton of ore per fathom. The lode in the 20 end, on north part, is small, producing a little ore, but not to value. In the 20 end, on south part, the lode will yield full 1 ton of ore per fathom, in favourable ground. We are making good progress in clearing Wheal Jenkin adit; in the western part of our set, which is in a better condition than we expected to have found it. We have taken and tried two or three samples of the capels left standing near the surface on this, Wheal Jenkin, lode, and found them to make a produce of over 1 qr. of tin to the ton of stuff; this we consider favourable, as the main part of the lode has been taken away by the former workers.

MELLANBY.—R. Mitchell, March 16: In the 30 west of cross-cut, west of Gundry's shaft, the lode is 3 ft. wide, and yielding 1 1/2 ton of copper ore per fm. The lode in the rise in the back of the 40, west of shaft, is 6 ft. wide, and yielding 6 tons of ore per fathom; this rise is up 7 1/2 fms. The winze in the bottom of this level will yield 3 1/2 tons of ore per fathom. In the rise in the back of the 50, on the south-east part, the lode will yield 1 1/2 ton of ore per fathom. The rise in the back of this level, west of the cross-cut, will yield 3 tons of ore per fathom. In the winze sinking below the 60, west of shaft, the lode is 2 ft. wide, and yielding 1 1/2 ton of ore per fathom. We expect to communicate this winze with the rise in the back of the 76 some time next week. The rise in this level, the 70, west of shaft, will yield 1 ton of ore per fathom, and some stones of mundie and blende. The winze in the bottom of this level will yield occasional stones of copper ore. The rise in the back of this level, on the north-east part of the lode, will yield 2 tons of ore per fathom. The 70 cross-cut, driving towards the north lode, is still in a very easy channel of mineralised ground. The lode in the 80, west of shaft, is 2 ft. wide, and yielding saving work for copper ore and blende. The lode in the 90 fm. level, west of shaft, is 5 ft. wide, yielding 3 1/2 tons of ore per fathom, and looking promising for further improvement. The winze in the bottom of this level is also yielding 2 tons of ore per fathom. In the 100 fm. level, west of shaft, the lode is 5 ft. wide, and yielding 1 1/2 ton of ore per fathom. In the 110, west of shaft, the lode is 15 in. wide, and yielding 1 1/2 ton of ore per fathom. We shall now put these men to drive a short cross-cut very near the end to prove the south part of the lode. There is no change to notice in Gundry's shaft sinking below the 110. We shall commence next week to cut through the lode in the bottom of the old engine-shaft preparatory to driving a 110 east and west shaft. The stope throughout the mine are looking very well. We computed our sampling yesterday to be 512 tons of copper ore.

MORFA DU.—T. Mitchell, March 16: The rise in the back of the 65 continues to improve by the lode gradually getting wider. Most of the water is now coming from a small fissure by the side of the lode, and the rise is not so wet as it has been for some time. The men are now working with better spirits, and doing better duty. We have no change in the winze sinking below the 48, as we are still sinking by the side of the lode. The lode in the end driving in the 43 is also better. The quality of the ore coming into the forebreast appears to be richer than we have before seen it, and we expect soon to have a good lode in this direction. The stope in the 36 are looking much as usual. We have put on another man here, making seven men instead of six, as before, as we find there is more work to perform in getting away the stuff.

MYNYDD-GORDDU LEAD.—T. Omas Kemp, March 16: I beg to hand you the following report. The sinking of the engine Burns shaft below the 34 has, during the past week gone on uninterrupted; the ground in the bottom continues of the same favourable description as last reported, both for mineral and progress. To a point of about 34 fms. west from shaft, and 4 fms. over the back of the 34, by way of trial, I have put four men to rise in and stope the lode; when we commenced here the lode showed a little lead and blende ore, but since then

we do not, however, expect to get much ore in this winze, as we are sinking in the cross-course. We have a twofold object in view in the sinking of this winze—the getting away the stuff that may be broken in the 38 cross-cut south of Hallett's shaft, when a communication is effected, and also for ventilating this part of the sets, which is very important. The branch we are driving on at the 38, west of Hallett's cross-course, has a very promising appearance, and is producing saving work for copper.

NORTH DRESEBY MOUNTAIN.—R. H. Vivian, March 17: The shaftmen have thrown down all the stuff from the rise, and completed the shaft to within 4 ft. of No. 1 level. Next week the shaft will be completed; we shall then go on steadily sinking under level. The shaftmen have kept the four wheelers going with as much as they could do. I have given the matter of erecting dressing floors due consideration, and conclude that near the top of new shaft will be the best place. The debris can be disposed of more economically there than in the valley, even if we could have had that ground for the purpose. No other change since last week.

NORTH HERODSFORD.—T. Trelease, March 17: The piece of ground reported on at the 80 in my last extended about 2 fathoms north of the point then reached, and continued to produce good work for lead throughout in the last 5 fms. reached; the lode has been taken away above and below, and the end is full of stuff, as the stulls are all broken down. I am pleased to inform you that we have reached the end at the 50, and we shall find the lode about 2 ft. wide, composed of flonk, quartz, and capel, and producing good saving work for lead. A cross-cut has been driven west about 9 ft. from the present end, where a branch is intersected about 6 in. wide, producing good stones of lead; this branch is underlying east, and the lode is underlying west, and they will come together about 3 fms. below. From their present kindly appearance I think we may reasonably expect a good improvement at that point. All the surface operations continue to work satisfactorily.

NORTHERN LEAD.—T. Tonkin, March 17: The tribute ground in the 42 (1 to 9 west section) is yielding 20 cwt. of ore to the fathom, and the ground through hard is good for blasting. The tribute ground at the No. 12 west section yields 6 cwt. of ore to the fathom in easy ground. The tribute ground (east section) is looking well, and the yield of ore is 12 cwt. to the fathom. The drive west from the Gin shaft in Quarry Hazel still is in a good looking lode 5 ft. wide, and yields in the north side of the lode 12 cwt. of ore to the fathom. The drive (west section in Quarry Hazel) is producing a little ore, but not to value yet. The rise in the 25 (east section) is now in more likely ground, and is yielding some good stones of ore. The winze at the No. 12 west section is in easy ground, and is yielding some saving work. The tribute ground in the 15 is looking favourable, and the yield of ore is 15 cwt. to the fathom. There is no change to notice in the cross-cut to the side vein. The tribute ground in the adit level is looking favourable, and the yield of ore is 8 cwt. to the fathom. The weather is now fine, and we are making good progress in dressing, and the roads and dressing-floors were injured by the floods are in thorough repair.

OKEL TOR.—Henry Bulford, John Rodda, March 16: No change to report. All the main points in operation are looking very well, and continue to yield their usual quantities of ore. Saturday next is our setting-day, and a full report will be forwarded next week.

PANDORA.—H. Nottingham, March 17: We are getting on very well with the shaft work at the 45. We are now making dams in the level each side of the shaft for taking up the water and regulating it to the pumps. We shall finish this in a few days, then fix the lift and resume the sinking of shaft for another level. There is no change this week in either of the 45 or 33 ends, so that last week's valuations will still hold good. The drawing and dressing are going on well, and I hope to sample 50 tons next week, half lead and half blende.

PANTY-MWYN.—Enoch Parry, March 17: The 22, West of Modlyn, is being driven, by eight men, and every effort is being used to push it on. The ground still continues hard, but there is a soft against the footwall in the lower half of the lode, out of which a considerable stream of water is flowing. The lode is about 2 ft. wide, composed of carbonate of lime, blende, and a little lead ore. The 10, west of Griffith's, continues to open fair tribute ground. Our present returns are from this point, which is a new feature in the mine, and when we get the runs of ore between the two shafts open this ground to the west will continue to help the returns, and taking the ground in the adit levels as a guide we have great faith in the extension of this 10 fms. west. It is being driven at 3 ft. per fathom and 3 ft. per ton, including wheeling, filling, &c. Our tribute pitches are all looking fairly well. The horse power Robey mining engine is doing our pumping and winding in splendid style, and with about half the fuel generally used to do the same amount of work.

PARYS COPPER CORPORATION.—T. Mitchell, March 16: We have no change to report in the 90 south this week, as the men are engaged stripping down the corners of the level leading towards Colonel's shaft, and also putting in tramroad. The lode in the winze sinking below the 90 will yield about 2½ tons of copper ore per fathom. We find a little more sulphur coming in this last day or so. The drivings east and west of the 90 cross-cut are opening into nice looking ground, and contain branches of copper ore, some of which are from 2 to 3 in. wide of good quality, and we are hoping the branches will lead to something better shortly. The driving east of cross-course on the Carreg-y-dol lode is looking much the same as for some time past, yielding about 1½ tons of copper ore (and a little sulphur) per fathom. The trial driving at the 90 east of Gwen's lode is also producing about 1 ton of copper ore in a fathom. The ore here is of good quality and opening up tribute ground; we have no change of any importance at any other point. We have fixed the boiler in its place, and the masons are busy building the flues around it. So soon as this is completed we shall build a bed for the air compressor and push on with the erection of the boring machinery as fast as possible.

PATELEY BRIDGE.—David Williams, March 17: The 30 fm. level has been extended north of cross-cut 11 ft., the vein here improves in size and value as we approach the ore bearing measures proved productive by the winze in course of sinking below the 20, and is at present 1 ft. wide, composed principally of spar, barytes, and carrying a mixture of lead ore being saving work for dressing. We have two stopes in back of the 30, north respectively 12 and 10 cwt. of lead ore per fathom. The 20 north is in from cross-cut 8 fms. 3 ft. The vein has very much improved here during the past month, and is upwards of 2 ft. wide, carrying gossan, spar, and galena, worth 45 cwt. per fathom. A stope in back of level 20, north, is in advance of the 20 south, is 2 ft. wide, and producing 15 cwt. of lead ore per fathom. A stope in back of level 20, west, and producing 30 cwt. of lead ore per fathom. The winze in course of sinking below the 20, is in a vein 3 ft. wide, and producing 40 cwt. of lead ore per fathom. In consequence of the heavy floods of last week, which caused a fall in one of our main levels, our workings are under water. We shall resume pumping this week, and will endeavour to have the mine in fork again as early as possible. We have dressed and weighed off another parcel of lead ore, and have weighed off and sold another lot of pig lead.

PENHALLS.—S. Bennett, R. Harris, March 12: The lode in the 80 fm. level end west is small, yet containing some good tin stuff. The north part of the lode is cut beyond the fault referred to last week in the 70 end east, and found small; the cross-cut will be continued a few feet further to meet the south part. The 60 east is worth 8½ per fathom. The 55 east is producing low quality tin stuff. The 50 west is worth 5½ per fathom. The 45 west 6½ per fathom.

PENNANT.—March 16: The 80 is still in a fine lode, and the stopes continue to yield as for some time past. We are sending off good quantities of mineral from the dressing floor.

PEN-YR-ORSEDD.—G. Bellis, R. Prince, March 16: Fair progress is being made in extending the two cross-cuts. We have met with a considerable increase of water coming from the south side of the shaft, and the lode cannot be far from the present forebore. The men are busy making alterations in the shaft, but I hope it will not be long before we are able to send you substantial news, which has been expected for a long time. The drawing arrangements answer well, much more time being saved in drawing the stuff to surface than with the kibble. The machinery is also working well.

POLKROSE.—W. Bennett, March 17: There is a particular change in the mine since my report for the general meeting, beyond that we have passed through another branch in the south cross-cut about 2 in. wide, composed of sugar spar, spots of copper ore, munda, and peach. The men are making good progress with their respective bargains.

PORT NIGEL.—J. Manley, March 17: The 80 west is hard, and more spary for progress than last reported. The lode at present is unproductive. The lode in the 80 east is now about 4 ft. wide, composed of spar, copper, blende, and lead ore, yielding of the latter good saving work, and there is every indication for improvement. The lode in the 68 east is about 7 ft. wide, composed of spar, gossan, and lead ore. The north part of the lode for about 2 ft. is yielding good saving work. The prospects and value of this end are gradually improving, and it is my opinion from present appearances that a grand discovery will soon be made. This end is now the pioneer point, and has about 80 fms. of backs. We shall commence to load the 60 tons of lead ore sold to the Panther Lead Company to-morrow.

PRINCE OF WALES.—S. Roberts, March 16: In the 90 end east we have intersected the cross-course, which is letting out water freely. We are busily engaged clearing the stuff from this end so as to commence taking down the lode as early as possible, which is now standing 2 fms. in length, and as far as can be seen is looking well. At the level above the lode was very rich in tin and copper east of this cross-course, and is generally thought it will be the same at this level. At the 90 west the men are still driving by the lode, which appears to look well. We shall take it down as soon as we can clear the end. The ends, stopes, and pitches being all filled, in consequence of not being able to draw while the shaftmen were cutting down the shaft. The shaftmen are getting on the necessary work preparatory to sinking. Tributaries getting good wages. We are stamping when not winding. We have the tin dressing floors and burning house nearly in order to commence work.

ROMAN GRAVELS.—A. Waters and Son, March 17: The 110, north of Flat Rod shaft, has improved since last week from stones of ore to 2½ tons per fathom. The new vein near 80 south of new engine-shaft, going down in front of 95 end, shows a lode worth 4 tons per fathom. The 65 south is worth 15 tons per fathom. The 50 south this end is about 40 fms. behind the 65 is worth 1 ton per fathom. The winze below the 40 south is worth 2½ tons per fathom. The other points, including the stopes throughout the mine, are without change of note for the date of our last full report. We have to-day sampled 100 tons of lead ore for sale next week, when we shall sample another 100 tons.

P.S.—Mr. F. S. Wilson, who was for many years secretary of the company and long connected with the London management, has been through the underground workings, and carefully examined the machinery and various appliances for winding, crushing, and dressing the ores at surface with me to-day, and afterwards expressed the highest opinion as to present and future prospects of this great and lasting mine.

SOUTH CONDRURROW.—Wm. Rich, W. Williams, H. King, March 16: We have cut through the lode in the rise above the 30, referred to in our last report; this lode is about 18 in. wide, and yields rich stones of tin; this lode is seen at a point about 20 fms. below surface. The men are continuing the rise perpendicularly, and shall do nothing more towards proving the lode till after the rise is communicated to Marshall's shaft. The ground is easier for driving in the 70 cross-cut south towards Wheal Greville lode. There is no material alteration in the pitches and tutwork bargains since our report of last week.

SOUTH DEVON.—W. Hooper, March 16: The lode in the 110 east of Brooke engine-shaft, is 5½ ft. wide, containing spar and rich copper ore, with a value of fully 40½ per fathom, and has the appearance of a still further great improvement in a short distance further driving. In the stope in the back of this level the lode is 3 ft. wide, with a value of 24½ per fathom. The lode in the 110 east is from 10 to 11 ft. wide, composed of spar and rich copper ore, with a value of 24½ per fathom. We have now on the dressing floor splendid rocks of druse

came from this end. There has not been much done in stripping down the lode. In the 90 end of the level, going west, the men have been engaged in putting in timber to secure the sides of the level. The lode still maintains its size and value—50½ per fathom. In No. 1 stope in the back of this level the lode is 5 ft. wide, with a value of 15½ per fathom. In No. 2 stope the lode is 4 ft. wide, with a value of 16½ per fathom. In the 90 end east the lode is 6 ft. wide, with a value of 45½ per fathom. The appearance of this end is everything that can be desired for intersecting a mass of copper. In No. 1 stope in the back of this level—the 90—the lode is 5 ft. wide, with a value of 18½ per fathom. In No. 2 stope the lode is 3 ft. wide, with a value of 14½ per fathom. The lode in the 80 end east is 5 ft. wide, composed of capel, spar, and rich copper ore. In my opinion we shall have a valuable lode here. In No. 1 stope in the back of this level the lode is 5 ft. wide, with a value of 18½ per fathom. In No. 2 stope the lode is 8 ft. wide, with a value of 12½ per fathom. In No. 3 stope the lode is 4 ft. wide, with a value of 12½ per fathom. Surface: The new shaft is now down 2 fms. into firm rock, and from its appearance will require but light timbering. I have advertised in the daily papers for miners, and hope to have a full complement next week, when the sinking of same shall be pushed on with all possible dispatch. All our surface machinery is working very satisfactorily, the crusher and self-acting jiggers working day and night. All the dressing is being urged on as fast as possible, and hope to get from 450 to 500 tons of good quality stuff for the next week.

SOUTH DARREN.—H. H. Jones, March 17: In the past week we have had a blast or two in the lode in the 120 east and west of shaft to prove it, and it shows a very good mixture of lead and copper ores. We do not know yet how wide the lode is. Next week we intend to bring down the skip-road to the 120, after which we shall at once cut out the necessary ground for trip lode, shaft tackle, &c., preparatory to sinking another 10 fms. Fair progress is being made in driving the 120 east from winze towards shaft. In the 110 east, after passing through the cross point, the lode is taking its right course again, and appears to be getting wide and strong, with a good mixture of lead and copper ores. In the 110 west we are stripping down the lode in the side, about the place where the two drivings met, and I am pleased to be able to report it is opening out well. We have cut into it from 3 to 4 ft. wide, and for this width it is worth from 40½ to 50½ per fathom, and the full width of the lode is not yet ascertained. We have a long run of rich ore ground in advance of this end, proved to be gone down in the sole of the 100, and the 110 driving will be pushed forward with all possible dispatch to open out another new section, which I expect will prove to be very valuable. The stopes and pitches throughout the mine are just as usual, but the weather is more favourable for dressing we shall increase the returns.

SOUTH TOLCARN.—T. Angove, James Knotwell, March 16: The summen are engaged in casing and dividing down the engine-shaft to the 60, which we hope to accomplish next week. The tin stopes in the back and bottom of the 40 are looking much the same.

SOUTH WHEAL CREBOR.—John Goldsworthy, March 16: The sinking of the engine shaft below the 16 is being forced on with a full pace of 12 men; commencing at 1 A.M. on Monday, and going on till 10 P.M. on Saturday. The stratum being a good description for the production of copper ore. The stratum being short in length, rather sparse for sinking. We expect to reach the lode in a short time. The counter lode in the 16 driving north-west is 3 ft. wide, composed of quartz, prlan, blende, and white iron, intermixed with copper ore. In the 16 driving east of south the counter lode is 2 ft. wide, producing good stones of rich copper ore, and promises to improve. The lode in the rise in the back of the 16 is producing good saving work for copper ore. The surface work is being forced on as fast as possible.

TAMAR SILVER-LEAD.—R. Goldsworthy, March 17: The lode in the 57 fm. level is 4 ft. wide, and will produce 4 tons of fluor-spar and 3 cwt. of lead per fathom. A fine-looking lode. No change in the lode below the 57. In the 57 cross-cut east we have a change in the ground for the better, and letting out more water. No other change in the mine to notice this week.

TANKERVILLE GREAT CONSOLS.—A. Waters and Son, March 17: Tankerville: There is no change worthy of remark in this mine since our full report of last week. We have to-day sampled 60 tons of No. 1 and 12 tons of No. 2 quality lead ore, for sale next week.—Pennerley: The water is now 26 fms. behind Boat level, and the shaft so far is in good condition. Blast shaft will be secured to the 14 yard level below Boat level in course of the next few days. Gin shaft is being driven to the 20. Engine and pump in good order.—Bog Mine: The water is drained 19 fms. below Boat level. Engine working well. The ladder-ways are made good nearly to the 22, and we hope to begin clearing the old workings shortly. The new pit-frame at Bunting's shaft is nearly completed, and we shall be able to wind stuff out of Boat level 22 and deeper levels in due course.

TEMPLE.—March 16: The cross-cut in No. 2 north has now been extended 56½ fms., and has during the past week passed through what is, no doubt, a portion of the Champion lode, although no lead or blende has yet been seen. The cross-cut will be driven a few feet further to prove if any part of the lode is a fine-looking lode. The cross-cut end is now in solid ground quite free from joints or branches of any kind. The cross-cut from the bottom of the shaft south is now in about 2 fms., the end letting out water freely. The Temple lode, on doubt, is very near the end, and will, probably, be intersected within a few days. Machinery working satisfactorily.

TREVINCHE CONSOLS.—John Mayne, March 17: New Shaft: The lode continues to yield the usual quantities of ore—6 tons per fathom. The sinking of this shaft is being pushed on with all vigour, the stratum about the lode being the very best I have seen in the mine, and no doubt the lode will improve in sinking. I am glad to hear that the drive in such direction is yielding good quantities of ore. We are raising some good stones of lead in sinking the shaft. The 50 west is set to eight men, at 80s. per fm., including laying tramroad, &c., and delivering stuff at shaft. I have had two holes blasted in a lode standing alongside the level, which exposed some large pieces of very fine lead, together upwards of 5 cwt. I have, therefore, directed the men to cross-cut the lode at the extreme end to ascertain width and value of the ore at this point. I like the appearance very much, and it is already ascertained that we have a great length of productive ground to drive under, we may, agreeable to the laws of nature, look forward to the discovery of large quantities of lead in the 60. The 70 west follows a fine-looking lode, and at this depth we may justly anticipate greater quantities of lead than that found in the 50, or even will be found in the 60. I believe still greater depth should be our forte in mining here. From time to time I will advise you of the occurrences that may take place on the further developments of the levels I have alluded to. If this does not lead to something good and permanent it will be very disappointing. The rise above the 50, west of Murray's shaft, against the south side of No. 1 stope, contains stones and branches of lead. This will soon be communicated, and be of great advantage in stopping the lode west thereof. No. 1 stope is in the 40 west, having become small and poor, stopping has been suspended. The lode in No. 4 stope, in the 30 west, is 2 ft. wide, and yields good saving work. A pitch under the 40 west, at footway rise, has considerably improved, and has been re-set at 5½ per ton of lead ore. The other tribute pitches are without material change. We sampled on Wednesday last 20 tons of lead ore, for sale to-morrow. We expect to sample 50 tons of blende in about three weeks' time.

WEST CARADON.—N. Richards, March 16: Gilpin's lode, in the back of the 17, will yield fully 1¼ ton of red oxide and grey copper ore per fathom. Vivian's north lode, in the back of the 50 will yield 1½ ton of copper ore per fathom. We have suspended the rise in the back of the 38 west of cross-cut for the present, and have placed the men to sink in the bottom of the level, with the view of effecting a communication with the stope in the back of the 50. This will not only give us good ventilation but also greater facilities for taking away the ore that now is and which may be discovered in this piece of ground. We have also a new man clearing the cross-cut south of the main lode at the 50 towards Clyma's stopes and other lodes, as we want to see the same and ascertain, if possible, if any lodes or branches are missed in that direction, which is probable.

WEST CHIVERTON.—R. Southey, March 16: The only change to notice since the meeting is more water issuing from the cross-cut south at the 70, and the ground is changed to a light kibble.

WEST CRAYEN MOOR.—D. Williams, March 17: The Blackhill adit level has been extended east of new Blackhill shaft 154 fms. 2 ft. 6 in., and is now within about 5 fms. 3 ft. 6 in. of being in a line or parallel with the perpendicular of new east shaft. The vein in the present end is wider, and carrying very congenial matrix, with occasional stones of lead, and is altogether a more promising lode than we have for some time seen here. A stope in back of the level at 100s. per ton of dressed ore.

WEST CREBOR.—John Andrews, March 17: The shaftmen are making good progress in bringing up the drain to take off the surface water from the engine shaft, which most likely will be completed in about a week from this time, when I hope we shall be able to continue the sinking without let or hindrance on account of wet weather. The masons are busily engaged building the engine-house.

WEST DEVON GREAT CONSOLS.—George Rowe, March 16: There is no particular change in any point of our present operations during the past week, all of which are progressing very satisfactorily since the fine weather has set in.

WEST HOLWAY.—R. Rowlands, March 17: We have now reached a level of 110 yards, and are now preparing to cut a lode for driving out levels east and west from this point, and shall then sink a little lower to make a receptacle for the surface water. In stripping down the side of the shaft in the bottom the men have extracted some splendid ore; the lode is very strong at present, being 8 ft. wide, and I am strongly of opinion that we shall have grand results at the present depth. There is a slight improvement in the 95 west. The rise in the 80 east is turning out good stuff for the dressing-floor. The 80 west maintains its value for lead ore previously reported. At Ram shaft we are making good progress, and are also preparing lead for sale.

WEST KILN.—Vivian, March 17: In the 72 driving east the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom.

WEST KILN.—Vivian, March 17: In the 72 driving east the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom.

WEST KILN.—Vivian, March 17: In the 72 driving east the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom.

WEST KILN.—Vivian, March 17: In the 72 driving east the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom.

WEST KILN.—Vivian, March 17: In the 72 driving east the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom. In the 72 fm. level driving west the lode is 3 ft. wide, and worth 7½ per fathom.

wide, producing rich stones of tin and copper ore. In the 60 driving east the lode is 5 ft. wide, and worth over 25½ per fathom. We have six men cutting a trip-plat at the 72; when this plat is completed I purpose to put in a tramroad at the 72 east.

WEST PATELEY BRIDGE.—David Williams, March 17: In the 67 north-west the vein is 12 ft. wide, its component parts being gossan, sulphate of barytes, with branches and stones of lead ore, worth 10 cwt. per fathom. The winze below the level is down 5 fms., in a vein 1½ ft. wide, chiefly composed of barytes and sugary spar, intermixed with small leaders or branches of lead ore. Other points without change. The stopes and pitches throughout the mine are yielding their usual quantities of lead ore. Since the change of weather dressing and surface operations are vigorously proceeded with, and I hope to have soon a good parcel of lead ore at the mill in course of smelting.

WEST POLDBREX.—Wm. Vivian, March 17: We have timbered and secured two shafts—one for drawing the stuff, the other for putting down footway. We have commenced to clear the adit level. I hope to reach the south lode in a few days.

WEST WHEAL TOLGUS.—John Gilbert, March 17: In the 155, driving west of Taylor's shaft, the lode is 4 ft. wide, and yielding some saving work for copper ore. The lode in the 145, west of shaft, is 1½ ft. wide, and I yield good stones of copper ore. In the 135, west of shaft, the lode is 1 ft. wide, composed of munda and stones of copper ore.—Richard's Shaft: The lode in the 105, driving west of shaft, is 2½ ft. wide, composed of spar and occasional stones of munda and copper ore. The lode in the 95, west of shaft, is 4 ft. wide, yielding a little ore, but not enough to value. The lode in the winze sinking in the bottom of this level is 5 ft. wide, and yielding fully 4 tons of ore per fathom. The lode in the 80, driving west of shaft, is 3 ft. wide, and yielding some good stones of copper ore. There is no change in any other part of the mine. We sampled on Tuesday last (computed) 157 tons of copper ore.

WEST VOR.—S. Harris, March 17: We are making fair progress in cleaning down the shaft, and cutting down the western end of same, where we have an 18 in. stope to make it its full length. We shall be ready for dividing and casing it for both drawing and pumpwork purposes in 14 days.

WHEAL BOYS.—W. T. White, March 15: Saturday last was pay and setting day, when we set the following bargains:—The 50, to drive west of shaft, at 47. 10s. per fathom; the lode in the end is improving, and I am very much pleased with its appearance. The lode is 4 ft. wide, and produces some very good stones of tin. During the past month we have cleared out the middle (or 45 fm. level), and I have this month set a winze to sink in the bottom of the level about 12 fms. west of shaft, at 22. 5s. per fathom. The lode here is very large, and the distance from this level to the 50 end is 5 fms., and the winze is in advance of the 51 end about 9 fms., which will give a necessary ventilation when communicated, as well as open up a good piece of stopping ground. We also have a pair of men clearing the 50 west on copper lode in order to cross-cut the south end and cross-course, where I calculate to meet with something good. I have every reason for believing we shall open up a valuable mine.

WHEAL COATES UNITED.—Wm. H. Martin, March 11: The shaftmen are engaged doing the preliminary work for fixing the plunger-pole in the 60. The 70 east is extended from the shaft 4 fathoms; driving by three men and three boys, at 6s. per fathom, worth for tin 9s. per fathom. The trial rise in the back of the 70 east is up 5 fms. 3 ft.; driving and stopping by six men, at 4s. per fm., worth for tin 6s. per fathom. The 70 west is extended from No. 2 winze 16 fms. 3 ft.; driving by six men, at 11s., and the lode still very hard and spary for dressing. We are expecting a change shortly, and a little more water is issuing from the lode; about 8 fathoms from the present end will reach the great cross-course. The 50 west end, on the south lode, is driven 4 fms. 3 ft.; driving by four men, at 5s. per fathom. The lode is 4 ft. wide, producing fully 4½ cwt. of tin to the ton of stuff, a very kindly-looking lode, inclining northwards it will intersect the north lode in a short drive, and in about 7 fathoms from the present end will intersect the cross-course. Stopping: A stope in the bottom of the 70, west from the winze, by four men and four boys, at 3s. per fathom, worth 7s. 10s. A stope in the back of the 70 west, by four men, at 5s. 6d. per ton, worth 8s. per ton. A stope in the bottom of the 60 east, by six men, at 4s. 9s. per ton, worth 8s. per ton. A stope in the back of the 60, west from No. 2 winze, by three men and three boys, at 5s. 6d. per ton.—Tribute: A pitch in the back of the 70, west from No. 2 winze, by three men and three boys, at 12s. in 1s. A pitch in the back of the 60 west, by six men, at 11s. in 1s. A pitch in the back of the 50 west, by six men, at 11s. in 1s. A pitch in the back of the 50 east, by four men and two boys, at 11s. in 1s., and 3s. per fathom to drive the end. The sale of tin for Wednesday next will be about 7 tons. We have drawn and stamped about 700 tons of tin stuff.

WHEAL CREBOR.—George Rowe, H. Phillips, March 15: All other points in operation throughout the mine are progressing satisfactorily, without any change in value since the report for the general meeting of last week. We are exceedingly busy in preparing for our next samplings of ore in this fine weather, and have to-day effected a communication with the new shaft and rise above the 108, and shall in a few days thoroughly ventilate all the workings on the rich courses of ore near and about the deepest part of the mine.

WHEAL FOXTON.—H. Cornwall, March 14: The ground in this end is composed of large 40 Cross-Cut North of Cook's Shaft: The ground in this end is composed of large branches of hard capel and quartz; the joints or cleavage of the rock are fact with carbonate of iron interspersed with munda, and spots of silver-lead are now occurring, all giving strong indications that we are now nearing the lode.—The 40 East of Cook's Shaft: The lode in the rise in the back of this level is 3 ft. wide, composed of quartz, prlan, and capel, with a leader of carbonate of iron 6 in. wide. This is a strong masterly lode, of a splendid character for silver, and we are daily expecting to open up something good at this point.—The 30 West of Lamping's cross-cut: The lode in the rise in the back of this level are at present small.—Bennett's Easter Shaft, 20 fm. level: The lode in the rise in the back of this level is 15 in. wide, carrying a leader of carbonate of iron 3 in. wide, interspersed with lead and silver, and from which we have broken during the past week 2 cwt. of silver ore of moderate quality.

WHEAL GEORGE.—C. Kneebone, March 16: The new adit on trial lode is now for the full size of the level (4½ ft. wide) in a strong, healthy course of gossan and limespar, with a little carbonate of lead, but not to value. We evidently only require more strength of ground to make the lode profitably productive, and this we shall acquire as we advance. I have this week sent off samples of prepared fullers earth, which by simple tests here appear to be of excellent quality, and if my anticipations of its value are realised it will become an important source of profit. We have invited estimates for the erection of kilns and reduction works, which I hope to submit to you shortly. The buildings have been retarded a couple of days by the contractors having to complete some work elsewhere, but we are now in full swing again, and hope to go on to completion without further hindrance.

WHEAL LUSKEY.—Wm. Skewis, J. Gifford, March 15: We visited this mine to-day, and report that it intersect the lode is driven 13 fms. This is driven by a full pair of six men. The stratum is of clay-slate, and favourable for driving. We have to-day opened on the back of Nicoll's lode in the side of the lode leading to the farmhouse. The lode is 10 ft. wide, composed of splendid gossan and quartz. Immense rocks of gossan were taken out and rolled into the road, where they may now be seen forming such a sight as one can scarcely again. We are now more than ever convinced that this is a magnificent property.

WHEAL PEEVOR.—W. T. White, T. C. King, March 15: Setting Report: The engine-shaft to sink below the 30, by 12 men, at 40s. per fathom. The 50 to drive west at 9s. 9s. per fathom; lode worth 12s. per fathom. The 80 driving west at 4s. 7s. per fathom; lode worth 12s. per fathom. The 80 to drive east at 6s. 5s. per fathom; lode worth 10s. per fathom. Rise in back of 80 west at 6s. per fathom; lode worth 10s. per fathom. Rise in back of 80, west of slide, at 6s. per fathom; lode worth 40s. per fathom; we expect to communicate this rise with the winze sinking in the bottom of the 70 next week, when a valuable section of stopping ground will be laid open. The 70 to drive west at 8s. 8s. per fathom; lode worth 20s. per fathom. The 70 to drive east of shaft, at 5s. 10s. per fathom; lode worth 13s. per fathom; this is the pioneer end for our eastern ground. The 70 to drive west on middle lode, at 5s. 5s. per fathom; lode worth 8s. per fathom. Winze to sink in the bottom of the 70 west at 6s. per fathom; lode worth 30s. per fathom; this winze is directly over the rise west of slide in back of the 80. Rise in back of 70 west at 6s. per fathom; lode worth 10s. per fathom. Cross-cut to drive north at the 60, west of cross-course, at 7s. 10s. per fathom; we think we are near the lode. Cross-cut to drive south at the 60 west at 6s. 5s. per fathom; ground greatly changed of late, and presents indications of the lode being near.—Cross-cut to drive north at the 70, east of shaft; this is to prove the north part of the lode east of shaft, price in driving 4s. 5s. per fathom. Seven stopes were also set on tutwork at prices varying from 2s. 10s. to 3s. 15s. per fathom; lode worth in each about 10s. per fathom. We also set 19 pitches on tribute at tributes varying from 3s. to 11s. in 1s. We consider the prospects of the mine are exceedingly good, especially east which has greatly improved of late; this with the fine run of tin ground we have already opened, and still are opening, to the west enables us to state that large returns of tin will continue to be made.

WHEAL UNY.—Henry Eddy, W. Profit, March 17: We have no material change here since our detailed report a fortnight since.

WHEAL RUSSELL.—John Gifford, John Bray, March 17: Last Saturday we set our pay and setting day, when the following bargains were set. A plat to cut in the eastern end of Mathew's shaft by six men, to be carried 9 ft. long, 12 ft. wide, and 7 ft. wide, per bargain, 12s. 7d. A cross-cut to drive north in the 55 fms. level, by four men, to be stopped when the agents think proper, at 7s. 10s. per fathom. A rise in back of the 55 fms. level on the counter lode, by two men; the rise to be carried 8 ft. long, 5 ft. wide, at 7s. 15s. per fathom; lode 2 ft. wide, producing saving work for copper ore. We are preparing to sink a winze below the adit level, east of Mathew's shaft, by four men; lode from 4 to 5 ft. wide of a highly promising character. A trial shaft, on the north lode, to sink, by four men, to be carried 8 ft. long, 4 ft. wide, at 4s. per fathom; lode from 5 to 4 ft. wide, thickly spotted with munda and copper; very promising lode. We have been shrouding on the south ground in our new sets to ascertain if any lode was in the direction before we commence to sink; nothing of importance has yet been met with. To-day we began to shroud on the line of the East Russia main lode, and from indications we are very near it; this is about the place where we shall sink the shaft.

At Swansea Ticketing, on Tuesday, 1382 tons of ore of 7½ average produce, and containing 98 tons 15½ cwt. of fine copper, were sold for 5846l. 14s. 0d., being 4l. 4

TO THE METAL TRADE.

FOR COPPER, TIN, LEAD, &c., apply to—
MESSRS. PELLY, BOYLE, AND CO.,
SWORN METAL BROKERS,
ALLHALLOWS CHAMBERS, LOMBARD STREET, LONDON.
(ESTABLISHED 1849.)

JOHN G. EAST,
NEWCASTLE-ON-TYNE.

BROKER FOR THE SALE OF PIG-LEAD, LEAD ORES,
COPPER ORE, COBALT, MANGANESE, CARBONATE OF
BARYTES. ESTABLISHED 1866

HENRY NUTT AND CO.,
57, BRISTOL ROAD, BIRMINGHAM,
PURCHASERS OF
LEAD ASHES, LEAD SLAGS, SULPHATE OF LEAD, TIN
ASHES, TERNE ASHES, AND ALL REFUSE CON-
TAINING TIN AND LEAD.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MARCH 18, 1881.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Pig, 220, L.B., Clyde...	2 7 10	2 8 0	English, ingot, f.o.b....	50 0 0	51 0 0
Scotch, all No. 1...	2 9 0	—	bars " "	51 0 0	52 0 0
Wales, f.o.b. Wales...	5 5 0	—	refined " "	52 0 0	53 0 0
" in London...	5 15 0	—	Australian " "	57 10 0	—
" Stafford...	6 12 6	6 15 0	Banca " "	—	—
" in Tyne or Tees...	5 12 6	5 15 0	Straits " "	57 10 0	—
" Swedish, London...	9 10 0	10 0 0	COPPER.		
Rails Welsh, at works...	5 10 0	5 15 0	Tough cake and ingot...	65 10 0	—
Sheets, Staff., in London...	8 0 0	—	Best selected...	67 10 0	—
Plates, ship, in London...	7 2 6	7 5 0	Sheets and sheathing...	70 0 0	—
Hoops, Staff., in London...	7 0 0	—	Flat Bottoms...	73 0 0	—
Nail rods, Staff., in Lon.	6 0 0	6 10 0	Wallaroo...	72 0 0	—
STEEL.			Burra, or P.C.C....	70 0 0	—
English, spring...	13 0 0	13 0 0	Other brands...	65 0 0	67 0 0
" cast...	30 0 0	40 0 0	Chili bars, g.o.b....	60 15 0	61 0 0
Swedish, keg...	15 0 0	—	PHOSPHOR BRONZE.		
" fag. hnm....	15 10 0	—	Alloys I., II., III., and IV. ...	£120 0 0	—
LEAD.			" VI. and VII. ...	135 0 0	—
English, pig, common...	15 0 0	15 5 0	" XI., Spl. bearing metal...	120 0 0	—
" " L.B. ...	15 5 0	15 10 0	BRASS.		
" sheet and bar...	15 12 6	15 15 0	Wire ...	7 1/2 d.	—
" pipe ...	16 0 0	16 5 0	Tubes ...	8 1/2 d.	—
" red ...	17 0 0	—	Sheets ...	9 1/2 d.	—
" white ...	21 10 0	23 10 0	Yel. met. sheath. & sheets...	5 1/2 d.	—
" patent shot ...	17 15 0	18 0 0	TIN-PLATES,*		
Spanish ...	14 17 6	—	Charcoal, 1st quality ...	1 2 0	1 4 0
NICKEL.			" 2nd quality ...	0 18 0	1 0 0
Metal, per cwt. ...	15 0 0	16 0 0	Coke, 1st quality ...	0 18 0	0 19 0
Ore, 10 per cent. per ton...	20 0 0	25 0 0	" 2nd quality ...	0 15 0	0 16 0
QUICKSILVER.			Black ...	15 10 0	—
Flasks, 75 lbs., war. (nom.)	6 10 0	6 15 0	Canada, Staff. or Gla. ...	12 0 0	—
SPELTER.			at Liverpool ...	12 0 0	—
Silesian ...	16 2 6	16 5 0	Black Taggers, 450 of ...	30 0 0	—
English, Swansea ...	16 10 0	—	14 x 10 ...	30 0 0	—
heet zinc ...	20 0 0	21 0 0			

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for
Canada; IX 6s. per box more than IX quoted above, and add 6s. for each X.
Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—This week the metal market has for the most part remained steady, and there is no particular change to record. For a few metals there are some fair inquiries, but the transactions are restricted chiefly to the supply of immediate wants. Consequently the prices asked are in many instances above what can be realized, although not unfrequently complaints abound that they are too low to leave any margin of profit to sellers. The present quietude in the markets is therefore explainable, for buyers appear to believe that current prices, although comparatively cheap, are nevertheless too high to make it worth their while to anticipate their future requirements, and sellers, holding just the opposite view, consider that existing rates are sufficiently low, especially as further reduced prices would often be attended with heavy sacrifices. With these two contrary opinions prevailing, reference is naturally made to the actual position of the markets to discover which present circumstances point to as being the most accurate, and certainly that which appears mostly in favour of the view entertained by those who look for further concessions in prices is the heavy stocks of some metals combined with the apparent improbability of any great reduction being effected for some little time hence. Then again advices from America are not quite so encouraging as a few weeks back, and report quieter markets out there with less business doing, and prices assuming an easier tendency. But further than these, notwithstanding that the foremost is a very great obstacle, yet there does not appear to be anything else which is likely to produce any material detrimental effect upon the future of the markets. On the other hand, looking at those incidences which seem to justify an improved range of prices, one of the first and most striking of which is the much depreciated value of metals now compared with former years, not that too much importance should be laid on the fact that present prices are comparatively low, for the keen competition and the reduced cost of production, necessarily makes this the case; but when it is seen that prices are exceptionally although not unprecedentedly low, and even at times said to be leaving a positive loss to producers, then it becomes questionable whether buyers will be able to purchase much longer upon such advantageous terms as the present opportunity affords, and it is not a little surprising that there should have been so few who have availed themselves of the present particularly favourable period. That there have been some shippers and consumers who have been buying tolerably freely there can be no doubt, for the improved Board of Trade and Traffic Returns are the strongest evidences that such has been the case, and for others to follow in the same train is undoubtedly worthy of consideration. Another reason which indicates that ruling prices are either at or about their minimum is the continued cheapness of money, and while there remains such a plethora of money there can be but little doubt that sooner or later some influence will be borne on our markets, for it should be remembered that invariably metals, through their non-perishable character, receive about the first attention of speculators and investors in produce.

COPPER.—This market has continued dull, but prices have been firmly maintained, chiefly owing to a further announcement of light charters from Chili, which for the first half of this month have been only 550 tons bars and ingots, and which makes the total charters this year only 5800 tons, against 12,400 tons for the corresponding period of last year; 9200 tons for the same time in 1879; and 10,500 tons in 1878. These figures are so striking that they hardly need comment, and not only is a marked decrease apparent in the charters, but there is also a great falling-off in the shipments from Chili for the first two months of this year compared with similar periods for the previous three years; for returns just issued show them to be only 4400 tons, against 8866 tons in 1880; 7902 tons in 1879; and 7756 in 1878. The imports of Chili produce during the first fortnight of this month were 535 tons, and the deliveries 927 tons, both being considerably less than those for the same time of last year, and especially is this the case in the imports. The total stock in first and second hands in Liverpool and Swansea has been reduced to 32,443 tons, against 32,835 tons on the 28th ult. One other favourable point which the bi-monthly returns show, is that hitherto, through some discrepancy, the stock in Havre has been over-estimated by about 1500 tons, and it is somewhat surprising that the discovery of this error in statistics has not produced a greater influence upon the price, but it is a sure evidence that there is very little speculation in the market, and also that regular trade is very quiet, for at any other time, if but a moderate amount of speculative inquiry existed, such an announcement would have caused a strong disposition to buy, and prices be thus improved. Although the quantity over-estimated in itself is not sufficiently large to make any particular difference to the market in the face of the present enormous stock, yet when the returns which we have already quoted show that, at least from one source, there is a curtailed supply, the combination of the two circumstances is undoubtedly a proof that the actual statistical position of the market is more favourable than at first sight appears to be the case, and although there has been no rallying in the price up to the present time, yet it seems not unlikely that when a improvement does occur, operators will not overlook the fact, which shows a less stock in existence. At the Public Ticketing at Swansea last Tuesday, 1382 tons copper ores, of an average produce of 74 per cent., were sold at an average of 11s. 10d. per unit. There will be no sale on Tuesday, March 29.

IRON.—This market keeps very quiet, and reduced prices for the raw material have been accepted, while manufactured, although not having undergone any noteworthy change in quotations, is nevertheless somewhat easier in prices, and it seems certainly worth the while of buyers, who hold orders at somewhat under current rates, to offer them at the present time, as there appears every probability of these being accepted, providing there is no very great concession required. That which evidently depresses the Scotch market mostly is the vast accumulations which from day to day take place in the public stock, and also the unfavourable comparative shipments this year with last. In first treating with this latter impediment it should not be forgotten that the shipments at the early part of last year were of an exceptionally large character; but according to statistics, since 1876, with the exception of last year, the shipments for the similar periods have not been as heavy as they have been for the first three months of this year, the nearest approach being in 1879, when they were rather more than 1000 tons less than they have been this year. One other point would also be well not to be overlooked, and that is through the continued severity of the weather in the Baltic and North of Europe the ports there situated being still blocked, and, consequently, not navigable, and therefore shipments on this account must have necessarily been somewhat restricted. With reference to the stocks this is undoubtedly the greatest drawback to the progress of the market, and an obstacle which will necessitate the greatest difficulty to overcome, and that which increases the depression is, there seems but little chance of any speedy reduction being effected in the production, for the latest returns show the number of furnaces to be maintained. Unless some unexpected demand arises, or producers are prepared to curtail their supplies, there does not appear much prospect of improved prices, unless it be occasioned through renewed speculation. Dulness has characterized the Glasgow warrant market, while prices have assumed an easier tendency, and transactions have been chiefly of a limited character. Opening on Monday at 49s., the price soon afterwards advanced to 49s. 3d., but as speedily again receded to 49s., and on Tuesday further reduced rates were necessary in order to make business practicable, transactions being recorded as low as 48s. 9d. cash; while on Wednesday sellers, finding buyers particularly scarce, offered to sell at 48s. 6d.; and yesterday, at the close, 48s. 1d. was all that could be realized, the market closing to-day at 47s. 10d. and 48s. The shipments last week were only 8261 tons, against 20,985 tons for the same week last year, or a reduction of 12,724 tons. The total shipments this year have been 90,733 tons, against 145,561 tons for the same time in 1880, and 89,229 tons in 1879. There is no change in the number of furnaces in blast, which continue at 120; but the stock has increased to 531,725 tons, against 529,111 tons, or an increase of 2614 tons for the week. The imports of Middlesbrough pig iron into Grangemouth last week were 6049 tons, against 660 tons for the same time last year, or an increase of 5389 tons, and which reduces the total decrease for the whole of this year to 1356 tons. The Middlesbrough market is reported both flatter and weaker. There is less inquiry both for sharp and forward delivery, and buyers, apparently having their pressing wants satisfied, seem inclined to wait in the hope of being able to purchase more favourably hereafter. The best that can be realized for No. 3, sharp delivery, is 38s., at which sellers exist; while No. 4 is quoted at about 37s. 3d., with forward parcels at about 6d. to 9d. more. There is hardly any business doing in warrants; and although sellers quote 39s. 6d. for No. 3, purchasers will not pay above 39s. 3d. The stock in public warrant stores has further increased by 2544 tons, amounting last Tuesday to no less than 155,366 tons. The shipments last week were lighter, being only about 13,500 tons. In manufactured there is also less doing, the deliveries last week, including steel, being only 2544 tons. In quotations there is not much change, ship plates selling at 67s. 6d.; and bars and angles at 57s. 10s. The Wolverhampton market has been quiet, while prices have assumed an easier tendency. Cinder pigs are quoted at 2s. 6d. down, the present price now asked being 35s. Thornecliffe pigs have been subject to a drop of 1s. 6d. per ton, 58s. 6d. being the best that can be realized. The quotation for Derbyshire pigs is 45s., or a reduction of 1s. 3d. In finished iron great quietude prevails, especially for sheets and hoops. The Birmingham market is reported dull and inactive in all departments, and in order to effect business, sellers proclaim their willingness to accept lower rates. Common pigs have been reduced by about 1s. 6d., and puddled bars have fallen to the extent of 2s. 6d. per ton. In some instances low qualities of ordinary bars have been sold at 57s. 12s. 6d., although the regular quotation is 57s. 15s. In marked bars there is no change to report. A tolerably cheerful tone prevails on the Sheffield market, and it is said there are increasing evidences of a busy spring. There is a brisk demand for rails for the United States, and a fair inquiry exists for hoops and sheets for Australia. There is a fair amount of business doing in plates, and the inquiry for general railway material is fairly large. There is little or no abatement in the vitality in the trade in the Welsh districts, and although American requirements are not so satisfactory as could be wished, and do not meet anticipations, yet considerable quantities have nevertheless been ordered for that country, while for other parts a steady trade is doing. The latest advices from New York report a decreasing demand and weaker prices, although no official change is reported in quotations, which continue for No. 1 Gartsherrie and Gleggarnock at 23s. 6d.; Coltness at 24s. 5d.; and 20s. for Eglinton. In scrap and old rails there is no change, former prices being maintained, and the demand unimproved.

TIN.—This market has kept quiet, and without material change taking place from day to day in price, quotations for cash parcels of foreign being chiefly at 877s. 7s. 6d. to 877s. 10s. This continued steadiness in the market is a matter of some congratulation, for not only does it give consumers a favourable opportunity of purchasing advantageously, but it is also much more satisfactory to the trade at large than if a season of wild inflation prevailed, as not unfrequently exists in this market. The manifest steadiness in the market is also an indication that holders are not prepared to materially give way further in price, and although from a lack of speculation through quietude in regular trade, prices do not advance, yet it should be remembered that the last returns published showed the statistical position of the market to have improved, and therefore it seems most probable that if the deliveries are maintained, being reported as 560 tons for the first half of this month, and the supplies are kept moderate, that ere long renewed buying will set in, and which will doubtless be strengthened and supported by the prevailing steadiness of the market.

LEAD.—This market continues to pursue a remarkably uninteresting course. Business if anything seems to become slower, and rather more difficult of arrangement, as buyers, besides being scarce, are also disposed to favour the idea that prices must recede; but at present there appears little indication of sellers materially giving way.

SPELTER.—Prices continue firm, and in some instances an advance has been effected in quotations, but the demand keeps very slack, especially for shipment, the quantities which are still being exported to the Indian markets being somewhat limited.

STEEL.—There is no change to be recorded in the state of this market, and prices continue steady. It is satisfactory to note that the latest advices from New York show that there is an increasing demand out there for rails, and prices continue to be firmly maintained at 62s. 5d. 1/2.

TIN PLATES.—There continues to be a fair amount of business doing at the present very low prices, and hopes are entertained that an improvement in price will ere long be effected, especially as it is reported that the disorganized state of the trade in the Welsh districts, owing to the strikes which there exist, has already caused some considerable reduction in the make, the over production being for so long past the chief cause of the depression in this market.

QUICKSILVER remains in all respects as during the previous week.

The settlement of the fortnightly account in the MINING SHARE MARKET has occupied the chief attention of brokers and dealers since our last, and there is scarcely any change to report upon, either in general quotations or in the amount of fresh business transacted. The chief demand has been for Carn Brea, Wheal Crebor, Wheal Agar, Prince of Wales, Devon Friendship, Parys, West Crebor, New West Caradon, Tankerville, East Roman Gravels, Roman Gravels, Peevor, and a few others.

TIN.—No further change has taken place in the standards for ore in Cornwall, and the market for metal in London seems pretty steady, though not rising. Blue Hills, 3s. to 4s.; Carn Brea has been mostly in demand, and have advanced to 127 1/2, 132 1/2; Dolcoath, 56 to 58; Cook's Kitchen, 11 1/2 to 12; East Lovell, 4 1/2 to 4 3/4; East Pool, 34 to 36; North Penstrutal, 14 to 15; New Peevor, 2 to 2 1/2; South Condurrow, 9 1/2 to 10; South Francis, 8 1/2 to 9; Tincroft, 18 1/2 to 19 1/2; West Bassett, 15 to 17; West Kitty, 3 to 3 1/2; New Kitty, 14 to 15. Wheal Kitty (St. Agnes) have advanced and leave off 2 to 2 1/2; West Francis, 10 1/2 to 11; West Peevor, 15 to 16; West Phoenix, 2 to 2 1/2. Wheal Agar have advanced to 9 1/2 to 10, upon an improvement in the mine. Wheal Bassett, 4 to 4 1/2; Wheal Grenville, 9 to 9 1/2; Wheal Jane, 3 to 4; Wheal Jewell, 1 1/2 to 1 3/4; Wheal Peevor, 19 1/2 to 20 1/2. North Busy, 1 to 1 1/2; at the meeting here the accounts showed a loss of about 1800l. on four months' working, and a debit balance

of 17477l., and a call of 5s. per share (13327l.) made. West Polbreen, 1 1/2 to 1 3/4; Polrose, 1 to 1 1/4.

COPPER MINES have been moderately dealt in, but the chief demand has been for low-priced shares. Bedford United, 40s. to 45s.; Devon Great United, 2 1/2 to 2 3/4; Devon Great Consols, 11 1/2 to 12 1/2. Wheal Crebors have advanced to 4 1/2, 4 3/4, ex div.; there is no change in the value of any of the points since the general meeting, but the new shaft and rise above the 108 have been communicated. Prince of Wales have been in good demand, and the prospects of the mine are daily improving; shares leave off 16s. 6d. to 18s. 6d. Parys Copper have also been enquired for at a low price, and leave off 16s. to 18s. Morfa Du, 1/2 to 1. South Caradon, 50 to 55; at the meeting in Cornwall the accounts showed sales of ore 71214l., and a profit on three months' working of 4527l.; out of this 3167l. is charged for boring machinery, and a balance of 18047l. carried forward. The report of the mine is better; the lode has been intersected in the 210, at Rule's shaft, of a promising appearance, and a boring machine has been purchased to work this part with all possible dispatch.

Mellanear, 5 to 5 1/2; the accounts for the meeting on March 29 show a profit on the year ending Dec. 31 of 58787l. 2s. 3d., or about 8007l. more than the profit of 1879. The dividends paid in 1880 were 55007l. In February of the present year there has been one of 2s. 6d. per share (12507l.), and the agent estimates the ores in reserve at 16,769 tons, an increase of 900 tons over the previous year. Devon Friendship, 1 1/2 to 1 3/4; a large business has been done during the week. The adit end is being driven in a great body of arsenical mudic. The rise is in a fine looking lode, containing rich black copper ore, both of which indications tell well for the productiveness of the deeper levels. South Devon United, 2 1/2 to 3 1/4; Carnarvon Copper, 20s. to 22s. 6d. East Caradon, 1 1/2 to 1 3/4; East Crebor, 10s. to 15s.; West Crebor, 8s. 6d. to 9s. 6d.; Gawton, 25s. to 27s. 6d.; Gunnislake (Clitters), 4 1/2 to 4 3/4; Hingston Down, 1 1/2 to 1 3/4; Marke Valley, 1 1/2 to 1 3/4; Mona, 14 to 15; New Cook's Kitchen, 6 to 6 1/2; Mount Carbis, 1 1/2 to 2 1/4; New West Caradon, 17s. 6d. to 20s.; Okef Tor, 1 1/2 to 1 3/4; South Crebor, 1 to 1 1/2; West Caradon, 15s. to 20s.; West Seton, 20 to 22 1/2.

LEAD MINES remain comparatively quiet, and quotations still nominal. Van, 12 1/2 to 13 1/2; Great Laxey, 17 to 18; Roman Gravels, 11 1/2 to 12; Tankerville Consols, 12s. 6d. to 15s.; D'Eresby Mountain, 40 to 50. East Roman Gravels, 17s. 6d. to 22s. 6d.; the mine is looking well, and the directors have issued a circular to the shareholders, in which they announce their intention to erect boring machinery, so that the ore ground may be opened more rapidly. Pandora, 20s. to 25s.; the mine is reported to be very rich in the bottom, and to be capable of making good profits when the new dressing machinery is at work. Northern, 20s. to 21s.; the ground opens well. The manager estimates there are 75 tons of ore dressed and in course of dressing. Kirk Michael, 1 1/2 to 1 3/4; Great West Chiverton, 5s. to 10s.; Derwent, 1 1/2 to 2; Bwlch United, 2 to 2 1/2; East Craven Moor, 1/2 to 1; East Van, 2 to 2 1/2; Glenroy, 3 to 4; Herodsfoot, 15s. to 20s.; Leadhills, 2 1/2 to 2 3/4; North D'Eresby, 1 to 1 1/4; North Herodsfoot, 3 to 4; West Lisburne, 1 1/2 to 1 3/4; Denbighshire, 2 to 3; Pennant, 4 1/2 to 5; Gorsedd, 2 1/2 to 3 1/2; West Holway, 1 1/2 to 2; Pen-y-Oscedd, 1 to 1 1/4. Great Holway, 4 1/2 to 5 1/2; the 60 east we understand is in a fine course of ore worth 4 tons of lead per fm. Frongoch, 4 to 5; Grogwinion, 2 1/2 to 3; Hartington, 1 to 1 1/2; Red Rock, 1 1/2 to 2; New Wye Valley, 1 1/2 to 1 3/4; Ystwith, 1 to 1 1/2; Gwernymynydd, 1 1/2 to 2.

FOREIGN MINES.—Brazilian Gold, 20s. to 25s.; Blue Tent, 1 1/2 to 2; Chontales, 3s. to 4s. The advices show a profit of 157l. in the month of January. The gold returned is valued at 4087l. Javali: the return for January is 9007l., against an expenditure of 9427l. English-Australian, 1 1/2 to 1 3/4; the advices this week show a profit at the rate of about 2007l. for the month. Arendal, 2 1/2 to 3 1/4; the lode at the bottom of Skytmoor shaft (72 fathoms) is worth 4 tons per fathom; the bottom of Lamb's shaft (69 fathoms), 3 tons; 60 end, 3 tons; and the rises, stopes, and winzes vary from 2 to 5 tons. Boilstad is improving, and the bottom of Murchison's shaft is worth 3 tons per fathom. There are 180 tons of ore now on the way, and they have chartered ships for 440 tons for Swansea, and 170 for the Tyne.

Cape Copper, 42 to 43; South Indian, 2 1/2 to 2 3/4; Indian Glenrock, 2 to 2 1/2; Indian Phoenix, 1 1/2 to 1 3/4; Indian Trevelyan, 1 1/2 to 1 3/4; Devala Moyer, 1 1/2 to 2 1/2; Colorado, 2 1/2 to 2 3/4; Copiapo, 2 1/2 to 2 3/4; Don Pedro, 12s. to 14s.; Eberhardt, 10s. to 15s.; Frontino, 4 1/2 to 5; New Quebrada, 6 to 6 1/2; Nouveau Mondo, 1 1/2 to 1 3/4; Richmond, 16 1/2 to 17; Ruby, 7 to 7 1/2; St. John del Rey, 265 to 276; Pestarena, 7s. to 8s.; Panulillo, 6 1/2 to 6 3/4. Birdseye Creek, 1 1/2 to 2; a clean-up has been telegraphed, ending Feb. 28; gross return, 814,000, which is looked upon as a good result. Hultafall, 2 to 2 1/2; Kapanga, 3 to 4; Placerelle, 2 1/2 to 2 3/4.

The Market for Mine Shares on the Stock Exchange has fully maintained the activity noticed a week since. A considerable amount of business has been done, especially in gold mine shares, and the tendency of prices is rather upwards. The subscribers to the Dynamite Fund, with which the prolongation of Nobel's patent was so successfully opposed, will be glad to learn that the proposal to illegally dispose of the surplus has not been entertained by the committee. Mr. Peter Watson, the chairman, states that the account will be at once made up, and the claims upon it paid. The surplus, which it is roughly estimated will be from 12s. to 15s. in the 17. of the amount subscribed, will be forthwith distributed to those who supplied it.

Indian Gold Mine shares continue to attract more attention than any other mining share in the market, and as results will, it is considered, now shortly be obtained, the confidence in them is rather increasing than otherwise. The quotations for the principal shares are—Devala Moyer, 1 1/2 to 2 1/2; Devala Provident, 1-16 to 1/4; Indian Glenrock, 2 to 2 1/2; Indian Phoenix, 1 1/2 to 1 3/4; Indian Trevelyan, 1 1/2 to 1 3/4; Mysore, 1 to 1 1/2. The directors have made a call of 5s. per share, payable on April 16. Mysore Reefs, 1 1/2 to 1 3/4. The report of the statutory meeting will be found in another column. Rhodes Valley, 1 to 1 1/2; South Indian, 2 1/2 to 2 3/4; South-East Wynaad, 1 1/2 to 1 3/4; Wynaad Perseverance 3 to 4.

The South East Wynaad Estates and Gold Mining Company have issued the interesting report recently received from the mining manager and engineer, Mr. J. J. Cooper. He is pushing on all the works with vigour, especially the erection of the stamps mill, so that before long he hopes to give results. He would be doing underground work, but this cannot be done until they get more English miners out, as they cannot leave the coolies to themselves where timbering has to be done. Therefore he is concentrating their chief work on the Richmond and Elizabeth Estates, where they have all their Englishmen. This further supply of Cornish labour will receive the careful attention of the board.

Mysore Reefs, 1/2 to 1/4 prem., and a good demand set in after the meeting of shareholders was held on Thursday last—the belief being that Mysore Reefs Company's property is one of the very best in India.

Great Wheal Polgooth, with a capital of 100,000l., in shares of 17. each, has been formed to purchase for 65,000l. (of which 30,000l. is taken in fully paid shares, and the rest in cash), and work the mine of the same name at St. Austell, near St. Austell. The property is bounded on the east by the Great Polgooth Mine, which has returned 500,000l. to its shareholders. On the west by St. Austell Consols, Dowgais, Strawberry, Fortescue, and other mines, all celebrated for the richness of their lodes. St. Austell Consols alone paid 390,000l. in dividends in a few years. And on the south it is bounded by the Great Hewas Mines, which paid 400,000l. in dividends in a comparatively short time. It will be seen from the prospectus, which will be found in another column, that the Great Wheal Polgooth sett contains seven lodes, concern which Capt. T. Fortescue says: "The whole seven lodes of this property are wonderfully rich, two alone of the seven having returned upwards of 200,000l. in dividends, and I should estimate that in these two lodes there now remained upward of 350,000l. worth of ore, and in the whole seven lodes I estimate there must be quite 1,200,000l. profit for any company which is fortunate to work them. The tin can be got out at once; no sinking of shafts or expensive machinery are required; neither have you to search for your tin. Here it is and any amount of it, and all you have to do is to remove and sell it. I have been 25 years in Australian tin mines, and I never in all that time saw such splendid looking stuff. Many samples which I took away averaged 42wt. tin to the ton of lode stuff, and this from haphazard breaking only. The lodes are simply walls of tin, and as depth is gained the profits must be fabulous." Particular attention is directed to the favourable terms of purchase, especially as compared with the fabulous sums which have been given lately for mines in India and America. Cornwall, it is remarked, has been famed for centuries for its enormous wealth in copper and tin, and for the fortunes which have been made there. There is probably no richer area of

ground in the world than Cornwall, not even excepting gold-bearing regions; and as gold mines in India and America are too far off to allow shareholders to satisfy themselves as to the bona fides of the property brought before them, or to inspect the mines from time to time, no investment can offer better inducements than a good English tin and copper mine of proved mineral wealth, and worked under the management of a board of directors skilled in mining matters.

The Guayana Gold Mining Company, with a capital of 250,000*l.*, in shares of 1*l.* each, has been formed to purchase for 142,000*l.* (of which 83,334*l.* will be taken in fully-paid shares and 58,666*l.* in cash) and develop the Andral Concession in Guayana, Venezuela, containing many veins of gold-bearing quartz hitherto held by the South American Mining Company, under a grant for 80 years from 1867. The prospectus, which will be found in another column, states that the Andral concession is in the immediate vicinity of the celebrated Potosi and Callao mines, in the Caral gold district, and the formation and character of the mineral-bearing lodes of the Panama Mine are precisely similar to those of the above well-known mines. The several large and rich gold veins on the Andral concession can be traced on the surface through the whole extent of the company's property. The principal lode or vein, which has been hitherto worked, is well known as the Panama vein, and averages about 4 ft. in width, but there are known to exist several other rich and valuable gold-bearing veins running through the entire property, which only require the practical application of capital to open and develop them, and render them as productive as the best lodes in the district of Guayana. A careful estimate of expenses and yield per month has been made by Mr. T. P. Ramsay and Mr. E. E. O'Leary, C.E., and M.E., both gentlemen of experience, who managed the mines and mill in 1878, and the directors are led to believe that with the employment of the 30 mill stamps a monthly profit of upwards of 7000*l.* (or 33 per cent. per annum) can be realised, while by increasing the mill power to 60 stamps (as the expenses do not increase *pro rata* throughout) the monthly profit may reasonably be expected to show a proportionately larger increase. This need not be considered an extravagant proposition, as the intrinsic value of the property is well known.

The Anglo-American Agricultural Company has been formed with a capital of 1,000,000*l.*, in shares of 5*l.* each, for the purchase, stocking, development, improvement, re-sale, and letting of land in Russell, Marion, and McPherson counties, on the lines of the Kansas Pacific, and the Atchison, Topeka, and Santa Fé Railways, in the southern part of Kansas, in the United States, and of such other lands as may be deemed most profitable for colonisation, stock raising, and general agriculture, for the purpose of making loans upon the security of improved farms, and the furtherance of the other objects mentioned in the Memorandum of Association. Prices range from 5*s.* upwards per acre for the fee simple, according to locality. Arrangements can be immediately made for purchase upon very favourable terms of at least 200,000 acres of suitable land from the above railway companies. The company's property being in the food supplying State for Kansas, Nebraska, and Iowa, whose great mineral resources are being rapidly developed, it is not doubted that the enterprise will prove highly remunerative. The prospectus will be found in another column.

The Flagstaff District Silver Mining Company will issue their letters of allotment and regret in the course of a few days. The reception on the part of those entitled to an allotment of shares from their connection with the old Flagstaff Company has been so favourable that there is no necessity to invite the public to subscribe at par. It is understood that steps have already been taken to get the property in full operation on the company's account. Further details will be forthcoming shortly.

The directors of the Tambracherry Estates and Wynaad Gold Mining Company have secured the services of Mr. C. J. Harvey to mark off the Cootacovil Reef with the necessary acreage and water frontage for disposal to a separate mining company as soon as his report is received. He writes, "There is no doubt whatever about this reef."

The prospectus of the Santa Cruz Sulphur and Copper Company has been issued with a capital of 200,000*l.*, in shares of 1*l.* each, of which 60,000 are appropriated as part payment of the purchase money (120,000*l.*), 20,000 reserved, and 133,334 are offered to the public for subscription at par. The company has for its object the purchase and working of the Spanish pyrites (sulphur and copper) properties known as the Dos Amigos and Guillermo estates, Santa Cruz, held under concessions from the Spanish Government in perpetuity, equal to freehold, and the ore from which has been tested from actual cargoes exported to and sold in this country to be of the same character as that from the mines of the Rio Tinto Company, Tharsis Sulphur and Copper Company, and Mason and Barry (Limited)—a private company. Three companies which now possess a virtual monopoly of the trade, and the success of which has been so great that the 10*l.* shares of the Rio Tinto Company stand at 23*l.*, and the 10*l.* shares of the Tharsis Company at 49*l.*, or four times the par value. The three companies just mentioned produce about 1,000,000 tons of ore a year, but so great is the demand that the directors of the Santa Cruz Company have received offers from well-known firms for the purchase of the whole of their produce, however large, at a price which will give a profit of 15*s.* per share after defraying the cost of carriage by carts to the Spanish shipping port Nalida, near Ferrol, only five days by steam from Liverpool and Newcastle-upon-Tyne; and when a tramway has been constructed, which will be proceeded with as soon as the necessary authorisation is obtained, of at least 1*l.* per ton. The ore contains by assay of cargoes sold in this country 42.75 per cent. of sulphur and 2.33 tons of copper; and the ore having been estimated at 6,780,000 tons will at an output of 70,000 tons per annum give an income of 52,500*l.* per annum, or when the tramway is completed 70,000*l.*, equal to 35 per cent. on the whole capital, but the output may hereafter be increased to from 90 to 120,000 tons per annum, the directors having in their estimate confined themselves to the present commercial value of the ore without regard to the experiments said to have been successfully carried out in France for the securing of the gold known to be found in Spanish pyrites, although they are fully alive to the importance, and will carefully watch the future progress of the experiments. Messrs. J. Banner and Co., of Liverpool, have been appointed shipping agents for Lancashire, and Messrs. Johnson, Lamprich, and Co., for the Tyne and district north of the Humber; and the board, which is very influentially formed, express the fullest confidence in the commercial value of the undertaking.

Devon Great Consols, 12 to 13, and in demand. The month's sampling of copper ore is 833 tons of better quality. Several points throughout the mine are improving and bordering on good courses of copper ores and mounds.

Devon Great United, 2½ to 2½, and in good demand, owing to the prospects of meeting shortly with some good discovery on the Devon Great Consols rich lode, as indicated in the report of the managers in another column.

Kit Hills Great Consols, 1 to 1½, and have been dealt in at improved prices. The local managers (also the managers of Devon Great Consols) have been to the mines giving the necessary directions for a vigorous prosecution, where important discoveries of tin and copper ores are expected.

South Devon United, 3½ to 3½. The mines continue to look better than ever, as will be seen by the manager's report in another column, and that the sampling of copper ore will be about 450 to 500 tons. The new shaft started last week is already down about 3 fathoms, and will be pushed down with all vigour.

West Wheel Seton, 20 to 22. The improvement at the bottom of the mine continues to look well.

South Wheel Frances, 8½ to 9½. An agent has been appointed, and it is to be hoped that out-adventurers will be favoured with weekly reports in these columns as to the actual state of the mines and progress made in the monthly returns of tin, and any other information.

Bedford United, 2 to 2½; it is said that the two good discoveries of copper ores recently made continue to improve, and is in direct line with the Devon Great Consols property.

Wheal George, 1½ to 2; it is announced that samples of fullers earth have been sent this week to London from Wheal George, and that it is probable large contracts will shortly be made at remunerative prices.

The letters of allotment of shares in the Walkham United Mines Company were posted yesterday.

East Wheel Rose shares are reported firm at ½ to 1½ prem.

The Silver Hill Mining Company, as it was stated they would in our last issue, proceeded to allotment yesterday, and the shares are now quoted 1 to 1½. It appears that the directors will visit the mine in the course of a few days, and that the driving of the great tunnel adit level will at once be proceeded with with as much celerity as the use of the best rock-drills can secure. An important discovery is likely to take place by the intersection of a valuable lode in a very short period, and it is believed that the tunnel vigorously driven through the sett will open up a valuable property.

In Hydraulic and Gold Washing Companies shares several transactions are reported; but prices remain without material alteration. Birdseye Creek, 1½ to 2. A telegram received during the week announces the result of the month's washing to end of February. Return from Neece and West Claim \$7250, and from Red Dog claim, \$6750. This latter is remarkably good, and seems to show that the claim will be exceedingly rich when more opened up. Placerville, 2½ to 2½. The new vein continues to open out satisfactorily, as is the case with the main vein under the slide.

In Lead Mine shares there has been comparatively little doing except in three or four instances. Tankerville Great Consols are reported to have been in demand, and the general opinion appears to be that the amalgamated property will prove highly remunerative.

Vans have also been more freely dealt in, and there are a few others for which there has been an increased enquiry.

Van, 12½ to 13½, with several sellers, owing to the great disappointment of the last twelve months' operations and the small amount of profit derived therefrom.

Roman Gravels, 11½ to 12½; it is reported that the mines never looked so well as now, not even when shares were selling some seven to eight years ago at double their present figure—23*l.* to 25*l.* per share. The value of the different points of operation throughout the mine is improving; they are producing 70 to 80 tons of lead ore per fathom—that is to say, 700*l.* to 800*l.* worth per fathom. The sales of ores and profits are expected to be considerably augmented.

Tankerville Great Consols, ½ to ¾ prem., and a large business has been done in them, a considerable interest having been bought by persons resident near the mines. An increased quantity of lead ore is sampled this week.

Richmond, 16½ to 17; the usual telegram from the mines at Eureka, Nevada, state that the week's run was \$55,000 from 885 tons of ore. During the week the refinery produced doré bars to the value of \$55,000. The manager (Feb. 23) reports that the 200 north drift from cave has been advanced 5 ft. on a well-defined fissure and favourable ground. The 300 north has been extended 9 ft. in fair looking ground. The 1000 ft. level has been drifted 6 ft.; ground in present coal is more favourable for drifting. All the chambers are looking well, and turning out the usual quantity of good ore.

Ruby and Dunderberg, 7 to 7½; the weekly report and telegram from Eureka show the usual progress in the work of development commenced in the autumn of last year. The distinctive feature of this week's report is the presence of good ore the whole width of the 400 ft. level towards the Home Ticket, while the 300 ft. level only requires about 70 ft. of drifting to come directly below the ore masses of the old Home Ticket workings. It is stated that some ore will be shipped from the El Dorado Mine so soon as the snow permits. The week's furnace return shows that a good reserve of ore is again accumulating.

The La Plata Mining and Smelting Company announced their usual monthly dividend at the rate of 7½ per cent. per share, payable on April 1, leaving at credit of reserve fund \$54,281.

The Quartz Hill Gold Mining Company's shares are quoted ¼ to ½ prem.

Last Chance, 1½ to 1½; Capt. Samson, the recently appointed appointed mining captain (Feb. 19), reports, with reference to commencement of work on the Hooper Mine, that he has timbered the tunnel in all places where he found it necessary, and that he has started work in the face of the lower adit, and will push the same as fast as possible; also that there is a good showing of ore in one place in the level; that the vein is very strong, and looks very favourable for ore in the face; that at present he is only employing four men, but as soon as he can get sufficient supplies he will double his force.

Potosi, 1½ to 1½; the directors have received a telegram from the mine dispatched about March 6 which states that the ley of the ore is 1½ ozs. to the ton. The produce of the first fortnight was 400 ozs. to 500 ozs. The cause of the small remittance is that they have been unable to obtain sufficient labour. This is the result of 9 days 24 hours' full work.

Kapanga, ¾ to ¾; the sinking of the shaft proceeds steadily. Depth to date of last advices 10 fms. under the 50. The ground in which they are sinking is highly mineralised, and the prospects for meeting a rich vein at lower depth decidedly encouraging. f Michipicoten, 1½ to 1½; machinery has, it is said, been contracted for (capable of treating 200 tons a-day of amygdaloid or vein material containing native copper) to be shipped not later than towards the end of next month.

Sentein, 1½ to 1½; it is reported that further large shipments of silver lead, carbonate of lead, and blende are being made. The capabilities of the mine having been proved it is considered that under able supervision it will become permanently remunerative.

Missouri, 10½ to 11; a telegram has been received from the mines stating that the February report has been delayed for a few days. The dressing and smelting of ore is going on regularly.

Brazilian Gold, 1½ to 1½; a local correspondent writes that they are trying and exploring with all diligence, both on surface and underground, but no true gold shoot has yet been laid open. He adds that so far as his experience of gold shoots in jacotinga goes there never was a true one in it that did not show itself at the surface on the outcrop of the lode, and nothing of the kind has yet been met with here, though the Brazilian *garimpeiros* (gold hunters), who are as keen as beagles in their search for gold, have tried the whole ground up to the Sierra da Piedade, for we find evident proofs of their diligence and research along the whole extent of the jacotinga formation. Mr. Geach, the new superintendent, was expected to arrive at the mines with four men in a week or ten days. All appears to be going on orderly and energetically, so that it is hoped that when Mr. Geach's large Brazilian gold mining experience is brought to bear rich gold deposits will be discovered, and results obtained with which all concerned will be satisfied. A London correspondent writes that these shares have been in demand upon receipt of advices from the manager, who, with a staff of miners and artisans, had arrived safely upon the property. The underground and surface arrangements were more advanced than expected. Only one of the mines had been examined, but gold had been found in several of the veins. Preparations were in progress for economically opening out the mine; and, as the levels will give from 50 to 80 fms. of backs, under very rich surface workings, important results are confidently looked for. The other rock mines, as well as the jacotinga deposits, will be fully reported upon after a thorough examination.

Hornachos, 10 to 10½; a circular detailing the operations at the mines has been issued this afternoon. They have 22 men working at Descuidada and 30 at Afortunada. The directors have secured the services of Capt. Emmanuel Jennings, of whose pending engagement notice has already been given. His long experience at the Fortuna Mines in Spain, under the management of Messrs. John Taylor and Sons, will no doubt prove of considerable advantage in promoting the rapid development of the company's mines.

Messrs. E. P. and W. Baldwin have received a telegram notifying a First Class award at the Melbourne Exhibition. They have previously received highest awards at Paris, 1878, and Sydney, 1879, as well as elsewhere.

During the last eight years, including several years of depression, the Moss Bay Hematite Iron and Steel Company has had a remarkably prosperous business, as shown in the prospectus; and the result of last year's working shows a profit of 37 per cent. on the partnership capital, and the prospects of the present year are equally, or even more favourable. The demand for steel rails is continually increasing, and at enhanced prices.

The total bonds lodged with the bankers of the Peruvian Bondholders' Committee, Messrs. Martin and Co., amount to nearly 26,000,000*l.*, and the voting has been virtually unanimously in favour of the present members of the committee—Sir H. W. Tyler, M.P., chairman; Lord Cochrane, deputy-chairman; Mr. James Croyle, Mr. G. Hopkinson, Mr. J. Procter, the Right Hon. H. Cecil Raikes, and Sir H. D. Wolff; and the majority of these gentlemen are proceeding this evening to Paris by appointment to meet the Chilian Minister with a view to generally discuss the steps now to be taken for the further securing the interests of the bondholders.

GAS SHARES.—The principal business in these shares, according to this evening's report of Mr. W. L. Webb, of the Stock Exchange and Finch-lane, has been in Brentford, 155; British, 34½; Bombay, 6½; Continental Union, 21½ to 22; ditto, new, 15; Alliance and Dublin, 16½; European, 19½ to 20; Gaslight, A, 175 to 177½; ditto, C, 10 per cent. pref., 210 to 211½; ditto D, 211; ditto H, 7 per cent. maximum, 133; ditto 4½ per cent. debentures, 130½; ditto 4 per cent. debenture, 103½; Imperial Continental, 195 to 197½; London, 184 to 185; Monte Video, 15½ to 15½; Para, 7½; South Metropolitan, B, 175½ to 177. Gas stocks flat. For closing prices see last on last page of Journal.

INSURANCE SHARES.—The closing prices of this evening's report of Mr. W. L. Webb, of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance British and Foreign, 38½ to 39½; Commercial Union, 26½ to 26½; Imperial, 24½ to 25; Fire 4½ to 4½; General, 9½; Home and Colonial, 11½ to 12½; Indemnity, 111; London, 65½; North British and Mercantile, 66½ to 67; Marine, 106 to 108½; Merchants, 1½; Ocean, 7½; Phoenix, 315 to 316; Rock, 8½; Universal, 8½ to 8½. Insurance good, and a fair business doing. For closing prices see last on last page of Journal.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr W. Abbott, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, 5, Birch-lane, writes:—Opening: Brighton A, are in active demand at 131, the opening price yesterday was but 127½ to 128; Dover A, were then 122½, now 124; British are 82, as compared with 85 of last Friday. American shares are higher. In Illinois Central the advance is nearly equal to 2½; Erie, 49½ to 49½; Pennsylvania, 68½ to 68½; Reading, 33½, new issue, ½ to 1 prem.; New York Central, 149½ to 150; Most of the Trunk issues show a recovery of ½ per cent., but still marking a heavy fall during the week. Ordinary, 21½ to 22; Preference, 99½ to 100; Second, 88½ to 89; Third, 43½ to 44; Richmond, 16½ to 16½; North D'Essey, 1½ to 1½; South Indian Gold, 2½ to 3½; Devon Consols, 11½ to 12; Pacific, 6½ to 6½; New Queharder, 5½ to 6½; Copiapo, 2½ to 2½; Elberhard, 19½ to 19½; Don Pedro, ½; Closing: Influential bidding for Brighton A quickly elevated the price to 133, then a reaction set in, until 131½ was reached; now a little over 132. Berwick touched 160; Turko rose to 13½. Business has been done in Illinois Central at 141; while Erie and Readings are

a ¼ better. A further rally of nearly ¼ has been established in Grand Trunks, Frongoch, 4½; Great Laxey, 17½ to 18½; Van, 13 to 14; Hungarian Copper, ¼ to 1; Canada Copper, 2 to 2½.

EAST CHIVERTON MINE.—We understand that the improvement in the 90 fm. level, going west, maintains its size and value 2½ tons of rich silver lead ore per fathom, or money value 30*l.* per fathom. This level is being driven at 4*l.* per fathom, and the ground sufficiently firm to stand without timber. Should this improvement prove a lasting one, and judging from the recent reports, all of which refer to the improved settled character of the ground confirmed by the fact of the present 80, requiring no timber. The time should not be far distant before the mine enters upon a successful career.

EAST CRAVEN MOOR (LIMITED).—The report from the mine, dated 17th inst., is a very satisfactory one, and but for the continued low price ruling for lead would be paying well.

DEVON FRIENDSHIP.—The latest from Capt. Daw (dated yesterday) says, "They are getting on well with the stack, and all other work is in a forward state. The adit end east of Bennett shaft is in a fine course of arsenical mudic, and no doubt, just under this will be found large courses of ore."

GREAT LAXEY.—Referring to the letter of Mr. G. W. Dumbell, the chairman of the company and its enclosure, published in the Supplement to last week's *Mining Journal*, Messrs. Edward Dow and Co., solicitors, of King-street, Cheapside, have forwarded on behalf of Mr. Richardson a denial of the accuracy of the statements contained therein. Careful attention will be given to any correction or explanation, signed by Mr. Richardson or his solicitors, which he may wish published.

ENGLISH-AUSTRALIAN.—The fortnightly advices just received are satisfactory. Judging from the results of the first two weeks of February (the operations having been interrupted through an accident), the profit for the month is estimated at about 200*l.* For the previous month the profit was 550*l.*

ARENDAL.—The report which will be found in another column is very favourable. The bottom of Skytmur shaft (72 fathoms) is worth 4 tons of copper ore per fathom, and the new levels will soon be started in very productive ground. Lamb's shaft is worth 3 tons, the 60 level 3 tons, the stopes, rises, and winzes 2 to 5 tons, and here some splendid ground will soon be available for stopes. Boilstad is fast improving. The 30 end is worth 1 ton, the 40 3 tons, rises and stopes 3 to 4 tons of 10 per cent. ore; the 20 above rise 5 to 6 tons, and Murchison's shaft 3 tons per fathom. The schooner Emmie is now bringing over 180 tons of ore to Newcastle, vessels for 440 tons for Swansea are chartered, and arrangements are being made for 170 tons for the Tyne, making the present shipments nearly 800 tons.

LA CONCEPCION GOLD MINING COMPANY.—The directors, in accordance with the promise of the prospectus, have selected a gentleman of considerable mining experience and high recommendation to proceed to their property at Venezuela, for the purpose of making an independent examination and reporting thereon. The gentleman appointed, together with the company's engineer, sailed by the Mosselle, which went out on Thursday.

AUSTRALIAN TIN—MOUNT BISCHOFF TIN MINING COMPANY.—At the meeting of shareholders at Launceston, Tasmania, on Jan. 31, the accounts showed a profit on the six months of 53,855*l.*, making a total credit balance for the year of 89,429*l.*, out of which 42,000*l.* have been declared in dividends, 4660*l.* written off for depreciation, leaving still a credit balance of 41,174*l.*, with which to commence the new year. The quantity of ore obtained during the six months was 1415 tons, and obtained since the formation of the company 10,669 tons. It appears that 1157 tons from Mount Bischoff assayed 73 per cent. for tin, and 199 tons 61 per cent.; 1072 tons of tin have been shipped. In addition to what tin the company has raised for itself, they have smelted 474 tons during the last six months for the public, producing 331 tons altogether. The quantity of ore smelted and tin produced during the half-year has been 1897 tons, producing 1338 tons of tin. The average assay of the Mount Bischoff No. 1 tin during the past six months has been 73 per cent., and the coarse tin (225 tons gross weight) has yielded an average assay of 64½ per cent. The assays of metallic tin have averaged 99.83 per cent. for the past half-year.

INDIAN GOLD MINES.

SIB.—As it seems to be generally admitted that the first company to give results will be the South Indian, I am somewhat surprised that the shares do not stand at a higher price than 3*l.*, seeing that at the end of this month a first dividend of 4*s.* per share, or 20 per cent., from the sale of surplus property will be distributed.
London, March 18. SOUTH INDIAN.

CAPPER PASS AND SON, BRISTOL,

ARE BUYERS OF
LEAD ASHES SULPHATE OF LEAD, LEAD SLAGS,
ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c
and DROSS or ORES containing
COPPER, LEAD, AND ANTIMONY.

C. H. WALKER AND CO., MINING AGENTS AND ENGINEER, VALPARAISO AND SANTIAGO, CHILE.

HENRY WIGGIN AND CO. (LATE EVANS AND ASKIN), NICKEL AND COBALT REFINERS BIRMINGHAM.

EAST VAN (LEAD, & C.) MINES.

The Advertiser wishes to obtain TENDERS for the SALE OF SHARES in this MINE. Please state quantity to be sold, price, and when deliverable (not to be later than the middle of April).
Address, "East Van," Borneo, Stationer, 115, London Wall.

FOR SALE, THE WHOLE OR PART:—

20 Wheel Crebor, £4 5 <i>s.</i>	25 West Lisburne, £1¼.	50 Prince of Wales, 18 <i>s.</i> 6
25 West Crebor, 9 <i>s.</i>	50 Sentein, £1 2 <i>s.</i> 6 <i>d.</i>	50 Pary's Corpor., 18 <i>s.</i>
5 Wheel Peavor, £21 10	40 Devon Friendship,	40 Cwm Bryn, offer
10 E. Wheel Lovell, £4¼	£1 2 <i>s.</i> 6 <i>d.</i>	wanted.
50 So. Devon Uni., £3¼.	10 Bwlch United, £1¼.	
Address, H. WILKINS, 1 Tamworth Villas, Tottenham.		

MESSRS. J. TAYLOR AND CO., MINING ENGINEERS AND INSPECTORS, 86, LONDON WALL, LONDON, E.C.

Have Agents in the various Mining Districts of Great Britain, the Continent, Australia, and the United States of America.
Inspections undertaken, either personally or by our Agents, and Reports or Advice as to Working given.

STOCKS AND SHARES.

FOREIGN BONDS, RAILWAYS, TRAMWAYS, GAS, INSURANCE, IRON, COAL, AND MISCELLANEOUS SHARES.
Prices, with reliable information, forwarded on application to—
MESSRS. H. R. LEWIS AND CO.,
BARTHOLOMEW HOUSE,
LONDON, E.C.

SPECIAL INFORMATION IN THE SELECTION OF MINING SECURITIES.

The "MONTHLY INVESTMENT LIST" and the "WEEKLY PRICE LIST" may be had on application.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
March 15—Foxdale	50 £12 2 0	Walker, Parker, & Co.
— ditto	50 12 2 0	Pauther Lead Co.
17—West Asheton	20 10 1 6	ditto

BLACK TIN.

Date.	Mine.	Tons.	c. q. lb.	Price p. ton.	Amount.
March 16—Wheal Coates	7	6 3 11 £53 15 0	£394 13 1—Daubuz.

THE RICO SILVER MINING COMPANY OF COLORADO

Has a Capital Stock of 25,000 Shares, of \$10 each, full paid, and non-assessable. It is a Limited Liability Corporation, organised under the Laws of the State of Illinois, for the purpose of purchasing, developing, and working Silver and Gold Mines situated at Rico, on the Rio Dolores, in that part of Colorado known as the "Silver San Juan" Mineral Country.

The Principal Office of the Company is at Chicago, Illinois.

The Georgie Mine, owned by the Rico Silver Mining Company, is situated in Horse Gulch, about one mile and a-half from the city of Rico.

The Georgie Lode appears to be a true fissure vein, which cannot be exhausted with depth; its width is now 3 feet 6 inches, and it is growing wider at the foot of the Incline Shaft. The country rock now is a calcareous pyritiferous quartzite, and the ore now consists of decomposed iron pyrites, white iron, black oxide of manganese, also galena carrying silver and gold; the quantity of galena increases as depth is attained. The gangue consists of quartz, calc spar, white spar, and felspar, partly decomposed.

From these, and from other indications, it is considered by competent mining experts that the Georgie Lode Claim is a very valuable property, and that it will produce good smelting ore, rich in silver, and probably carrying gold also.

The Company owns a mill site of five acres, situate at the junction of Horse Creek and the Dolores River.

The Grand View Smelting Works, distant about one mile from the Georgie Claim, are now in operation, and buying ores.

The Directors of the Rico Silver Mining Company offer for Sale a limited number of Working Capital Shares on very favourable terms to investors.

The policy of the Rico Silver Mining Company may be briefly outlined as follows:—To buy Mineral Claims from prospectors and locators now while Claims are cheap; to do sufficient work on each Claim to entitle the Company to a United States Patent; to take out the United States Patent for the property, and thus make the title secure; in other words, to do precisely what the Locator himself would gladly do had he the necessary capital: finally, to do the deep working when it can be done cheaply and profitably, which time will not be long coming after the Denver and Rio Grande Railroad reaches Derango this Spring.

The plan of operation pursued by the Rico Silver Mining Company has this result:—According as Working Capital Shares are sold, both fresh property and enhanced value are added to the Estate of the Company, which thereby steadily increases in volume as well as in worth. The Company's Estate not only gains in individual value, but also shares in the great general advance in value of Mining property which has now commenced in the San Juan Region, consequent upon the extension of the Denver and Rio Grande Railroad into that District.

The Rico Silver Mining Company is carefully managed at a small expense, and purchasers of its Working Capital Shares may reasonably look for large returns from the Investment. Profits of from 50 to 100 per cent. per annum are anticipated.

Prospectuses, and other information, will be sent, post free, on application.

January 10th, 1881.

245, WABASH AVENUE, CHICAGO, U.S.

J. J. WEST, President.

MINING AS A BUSINESS.

Points to be Considered by English Capitalists, as Regards American and other Mining Investments.

Anyone who thinks of putting money into Mining can, by writing to me, have sent, post free to his address, a CIRCULAR, which will give him Valuable Points of Financial Utility, and Practical Views regarding Mining Investments generally, considered from a business standpoint.

J. J. WEST, 245, WABASH AVENUE, CHICAGO, U.S.

Notices to Correspondents.

SHARE TRANSFER.—I hold some shares, and have lately received a "notice of call" (at a certain amount per share), which is dated Feb. 24, and is supposed to be giving one month's notice that the money is payable on April 17. I wish to know whether I ought to pay this call before selling these shares—that is, if I sell them immediately—or should I sell them as they are, and hand the buyer the "notice of call." (The call must be paid before the shares can be transferred. It does not follow that a call of 10s. per share, for example, being made the market value of the share is 10s. less; usually the reverse, because the financial condition is improved, and the prospect of a call is more remote.)

RIO TINTO MINES.—Will some correspondent inform me, through the Journal, what progress is being made at the Rio Tinto Mines with the extraction of copper by the cold process?—F. H. R.

SACKCLOTH THREAD.—I should feel obliged if some correspondent would inform me, through the Journal, the address of some firm or person who sells thread suitable for the manufacture of common sackcloth, such as is used in flour sacks.—FOREIGNER.

SIMPLE QUESTIONS.—"H. L. L." in reply to "X." in last week's Journal, gives formulae to show that the quartz solid must be 81 times larger than the galena. We may take the opportunity of stating that since questions of the nature of that now under consideration are usually put by practical men who neither know nor care anything of algebraic formulae replies should be expressed in words only. We have no convenience for printing formulae, and when they are printed in a newspaper they are almost invariably incorrect.

BI-CHROMATE PROCESS FOR EXTRACTING GOLD.—"L. L. A." (Lundy, Mono.)—The details of the Desguigne process will be published as soon as obtainable. It is understood that no practical results have yet been obtained with it.

Received.—"O. B. Q." (Hoover Hill Mining Company) will find the information he requires in the letter signed "Bondholder" in another column—"A Shareholder in the Four Mines" had better apply to the broker from whom he purchased the shares, or write to the secretaries of the companies—"W. H. F."—"Constant Reader" (Boulogne)—"T. W." (Morviston)—"F. P." (Brandon)—"W. S." (Southampton)—"Mem."—The committee were unanimously re-appointed; your informant must, therefore, have misled you—"A Disappointed Shareholder": The meeting will be held next week, when, doubtless, some explanations will be entered into to meet the requirements of our correspondent. The directors, of course, would be only too happy to do all that "A Disappointed Shareholder" desires—"H. W." (Great Polgoth)—A. Vassari (Graaff Reinet, South Africa): Next week—"Old Shareholder" (East Wheel Rose)—"M. W. N." (Glasgow)—"Pro Bono Publico" (East Wheel Rose)—"Old Shareholder" (Great Polgoth)—"Shareholder" (Wheel Crebor)

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, MARCH 19, 1881.

SURVEYING, OR CO-ORDINATE PLOTTING.

In an article in last week's Journal on the Magnetic Needle and Mining Plans, we pointed out the necessity for plans being accurate in every particular, and the surveys such that they should be in every way reliable. By the ordinary method the distance from the plane of meridian and the planes of latitude can be easily ascertained by tables of latitude and departure, or of natural sines or cosines, or by logarithms. By one system by which the register is taken of the relative position of every important station or point in a mine, so that the bearing from one point to another could be found with mathematical accuracy without referring to the plan, and where every plot in the survey is plotted independently of the other the errors were not continued, as in the ordinary method of protracting. The accuracy of a survey could, therefore, be tested exactly by calculation before it was laid down on the plan. In some instances the compass is only employed for short lines for temporary purposes during the progress of the work, such as for filling in the outline of the progress of the excavation. In plotting such lines time may be saved by fixing the compass to a broad scale by turning the plan on the table until the north and south line corresponds with the north and south line of the compass, and then without any aid from the protractor surveying on the paper with the compass in the same manner as the actual survey had been made on the ground. Calculation is in this manner saved, instrumental errors are partly neutralised if the same compass is used in both cases. Still, comparatively simple to the practised hand as surveying appears, most of our mining surveyors are admitted to be most defective and unreliable. Many of the surveys made with the compass have been found to be most inaccurate, so that it was a most important question in the interest of the mining body as to what was the best and most reliable system that could be adopted to ensure the greatest amount of accuracy.

HEDLEY'S dial, from its compactness, and the ease with which it can be read, appears to be a favourite with mining engineers. The ordinary dial, however, appears to be an instrument that can do all that is required. This has been shown by Mr. JEFFERSON in a paper read by him before the Midland Institute of Mining Engineers, and which is in every way a most important one, and such as should be dissected by our mining engineers. It was based on the mode of instruction in the Freiberg Mining University, where it is assumed a survey can only be accepted as correct when two independent surveys agree in the chief results with 1 link per 50 chains per longitudinal measurement, 1-2000 of the vertical height in levelling, and $\frac{1}{2}$ to $\frac{3}{4}$ per cent. for measurements of superficial area or cubic contents. Such accuracy, it appears, cannot be obtained by using the chain and the loose needle, which are the usual instruments for con-

ducting an underground survey. The means adopted by Mr. JEFFERSON, he informs us, is to repeat the reading of the angle from four to six times consecutively, after the manner of using the theodolite. The angle was read off by means of the vernier, the divisions of which measure the angle to three minutes, or 1-20 of a degree, and by making use of the same conventional device of + and - to denote an angle somewhat greater or less than those given by the vernier, the angle can be read to one minute, or 1-60 of a degree; that is, by using the vernier an angle could be measured with five times greater exactitude than when the vernier was not used.

The great point appears to be the frequent reading of the angles, so that defects are lessened by repeating the measurement. The mode of carrying out this will be seen from an extract from the writers surveying book. Taking 1, 2, and 3 as successive stations in part of a survey, and it is desired to obtain the angle between the two lines 1 and 2 and 2 and 3, the dial is removed from the tripod at station 1, and a cup and lamp placed on the tripod at station 2, and the sphere tripod from station 0 is removed to station 3, and a cup and lamp placed on it. The hairs of the dial are then directed on to the lamp at station 1, and the reading of the dial, whatever it may be, duly noted. The clamping screw is then loosened, and the sights are rotated to the right hand till the hairs cross the station 3. The sights are then clamped fast, and the angle noted down; the dial screw loosened, and the dials and sights rotated again till the hairs again cover the lamp at station 1, when the dial is clamped fast, and the sights unclamped and rotated till the hairs again cover the lamp at station 3, when the second reading is again noted. This is repeated until four to six successive readings have been taken, when the hairs cover the lamp at station 3. Having obtained from four to six measurements of the angle the average is taken, and the course of the line 1 2 is calculated from the course of the line 1 2. From the system of plotting brought forward by Mr. JEFFERSON, and which requires a diagram to fully explain, it appears that to obtain the distance of a station north or south of any other station they must multiply the distance by the cosine of the angle of the course, and to obtain the distance of any station east or west of another station they must multiply the distance by the sine of the angle of the course. The position, too, of any station with regard to another can be calculated to one-tenth of a link, whereas the plotting scale cannot be used for measuring a single set nearer the front to two links, which over a great number of sets might give an important difference. This mode of surveying, however, is recommended only for the principal roadways of a mine and in cases where a great amount of exactitude is required; but it is used by the mineral surveyors of Prussia and Austria for main surveys.

THE SINKING OF MINING SHAFTS, &c.

In the sinking of mining shafts there is a considerable difference in the mode of procedure adopted by sinkers, but in all cases it is essential now more than it has ever been that the work should be done expeditiously and economically. Of late several new appliances have been brought to bear in the sinking of shafts and the laying out of the surface works, and these should be generally known. In the first place, before sinking a correct plan and section should be prepared, showing the peculiarities of the strata, such as faults, heaves, and rolls, so that the sinkers can be made acquainted with whatever difficulties they are likely to meet with in going down, and that they may more easily surmount them, and meet them under the most favourable circumstances. There must be shown the length, direction, and inclination of the work to be done, every point being referable to three planes, one of them vertical and two horizontal, at right angles to each other, and passing through and having one point in common—as, for instance, the centre of the top of the principal shaft, one vertical plane, the meridian due north and south, the second east or west, and the third plane perfectly horizontal. The distance is very important in the underground or surface survey from these three planes, and should be accurately determined and registered. In buildings and machinery it may be said the same result can be obtained by the plane elevation and section. As to boring, the old system of using iron rods and a steel chisel has been in operation until quite recently, but it is one to which there are several objections. With it there is considerable difficulty in telling when the mineral is reached; and, with respect to coal, there is no reliable means of ascertaining its quality. Many mistakes have been made, seeing that it was only by the sound of the chisel, when in contact with the coal that they could tell of its presence; but a nearly similar sound, except to a decidedly practical ear, is heard, especially in passing through a bed of highly bituminous shale, which at times has been taken for canal coal. These disadvantages and uncertainties have been overcome by inventions during the last few years, by which the work is more accurately done, and with a great saving of time, besides which they bring up a solid core of the strata passed through, so that the opportunity is afforded of inspecting the strata and judging with precision as to the quality of the mineral.

The new machines avoid the imperfections of the old ones, and as a consequence must give more confidence to persons desirous of trying unknown ground in search of minerals. Having ascertained that the mineral sought for by boring has been reached, the next thing to be done is to prepare for sinking, and so fixing upon the site for the shaft or shafts. As regards a coal mine, the first and most important point is the position of the winding shaft, which should be as far to the dip of the field to be worked as a long range of level course can be obtained, and as close to a line of railway as possible. The upcast should be to the rise of the field of mineral, seeing that the air underground naturally ascends as it is warmed, and the gases along with it. In setting out the surface buildings the angles made should be true light angles. The diagonal line from angle to angle of the building should be measured, and its square should exactly equal the square of the length of the front lines added to the square of the side of the building, and if the building be correctly set out the two diagonal lines should be exactly of equal length. In the setting out of a railway in connection with the mine the best line between any two points is determined by levelling. The direction of the water courses is the first guide as to the inclination of the country, the most accessible lines at the lowest level, and the inter-

vening water-shed lines, which present most of the difficulties in railway engineering when they have to be tunnelled through. Trial sections are taken along each of the valley lines, and that line is selected which has the flattest gradients, the least curves, and the fewest difficulties of construction. The usual survey is made, the curves of the centre line laid out on the plan, and being marked out roughly on the ground at the intersection of fences and other points, a section is levelled along the centre line to show approximately the amount of cutting and embankment, the height of road above or under the railway, &c. Having thus completed boring and laid out the surface works, sinking operations necessarily follow. By the old system, which is still in force, shaft sinking is both tedious and expensive, but new modes have been introduced that do the work expeditiously and at the same time economically. The most recent system of sinking is that known as the KIRD and CHAUDRON. Of the advantages of the system it may be stated that in sinking two shafts in the department of Moselle, in France, by the old mode 240,000*l.* had been expended, whilst two other shafts close at hand sunk under exactly similar conditions by the KIRD-CHAUDRON process only cost 35,000*l.* One of the pits in the Escarpelle Mines, in the North of France, was sunk without the least trouble, although the water met with was 15,625 gallons per minute, the shaft being 14 ft. in diameter.

In England some three or four mines have been successfully sunk by the system, which in time, no doubt, will be generally adopted, for by it the water has not to be pumped out of the shafts during the progress of the work, the apparatus employed being so arranged as to effect the complete isolation of the water-bearing strata. The powerful machinery for pumping is entirely dispensed with, all that is required being a small pair of 10-horse engines for manœuvring the boring tools. With regard to the system of pumping water from mines, it is admitted that during the last few years there has been a marked revolution. In one instance compressed air has been used for the purpose of forcing the water to the surface; in another the steam used for driving the pumps is caused to pass into the suction pipe instead of into the air, and another well-known pump is on a similar principle, excepting that the applied steam is divided more minutely. It is evident, however, that the old and ponderous machinery used for pumping, entailing not only a heavy expenditure in the first instance, but causing a constant expense in labour and fuel, will before long be known as things of the past. Sinking by what may be termed the best known process has undergone a considerable change, and this has been exemplified by the mode of blasting. Where the strata were struck by ordinary firing a comparatively small quantity was broken, but by drilling a number of holes and firing them by electricity a vast mass of material was shattered. The value of dynamite, simultaneous blasting, and firing by electricity was shown in the sinking of the Ashton Moss Colliery, the deepest in the kingdom, and where the coal was reached last week at a distance of 950 yards. Twelve sump holes 6 ft. 6 in. deep were bored and exploded, when the holes broke the ground and exploded. The holes broke the ground to a depth of about 7 ft. on one occasion, when a piece of the strata was found reared up against the pit side, containing about 6½ cubic yards, and which took three smaller holes to break it up. It has been assumed that electric blasting was not adapted when the strata inclined as much as 1 in 3, but experience has proved the contrary of this, all that is required being that rather more dynamite has been found necessary for three or four of the side holes.

This mode of sinking will be found far more expeditious, safer, and economical than the ordinary system, occupying so much time, and costing so much in wages alone. Where there is a considerable pressure of water as the sinking proceeds cast-iron tubing will be found necessary, and the cheapest in the long run, as it is by far the most effectual. Each segment should have a hole in the middle about an inch in diameter, which not only lets out the water as the tubing is built up, but is also convenient for letting it down the pit. In putting in the tubing experience has proved that it is the best and most economical plan to wall every shaft throughout as it is sunk. In connection with cast-iron tubing there has generally been considerable expense in wedging the points of the segments, so as to have little or no leakage, but this by a simple method can now be rendered unnecessary, a substitute at a trifling cost having been found for it. The wedges can be entirely dispensed with by filling up the back of the tubing with soil in a powdered state, and which not only prevents any leakage but has the additional advantage of preserving the segments of tubing from the corrosive action of water for many years. The soil should be moderately dry, free from lumps, and poured into water, so that any vegetable matter should float on the surface, and be removed after a certain space has been filled up. In concluding this notice we may say that considering the great importance of the economical and speedy sinking of mines—metalliferous as well as coal—we shall from time to time notice all new inventions or improvements having those objects in view, and we are sure that they will not fail to be received with interest by those connected with the great mining industries of the country.

THE OUTLOOK IN THE IRON TRADE.

We fear that so far as the demand for pig-iron is concerned there can be no doubt that the aspect of affairs has become decidedly less encouraging. The increase in the stock of pig in Scotland and in the Cleveland group during the first two months of this year has been 125,023 tons, and it is not at all surprising to find under these circumstances, prices at their present low level. The great cause of the diminished activity in our pig-iron trade appears to be the falling off in the shipments to the United States. It will be remembered that in the autumn of 1879 a wonderful stimulus was given to our iron trade by the demand which suddenly sprung up across the Atlantic for English pig. The American railroad interest revived at last, and American ironmasters being caught napping were compelled to send to England for large quantities of pig to be worked up into rails. So long as this went on the aspect of affairs in Cleveland and Lanarkshire was of the most rosy character. More furnaces had to be lighted, and production was bespoken before it was effected. But the owners of American blast-furnaces soon recovered from their surprise. The number of blast-furnaces in operation in the United States steadily increased, and the unwelcome fact now stares our ironmasters in the face that their American neighbours are much less dependent upon them for pig than they were a year since. The effect upon prices in this country has been even more marked than upon production. A year since Cleveland pig No. 3 stood at 65*s.* per ton; now it would be difficult to obtain 40*s.* per ton for the same article. As it is difficult at once to reduce the cost of production, or even to reduce it at all, it is easy to see that, to use a homely phrase, the gilt has once more been taken off the gingerbread in the British iron trade.

It had been hoped that the decline in the American demand for our iron would have been compensated for by an increase in the consumption in other quarters. This expectation has been realised, to some extent, as regards rails; but when we come to deal with pig-iron it must be confessed that the results witnessed are exceedingly discouraging. The decline in the shipments of our pig-iron to the United States in the first two months of this year, as compared with the corresponding period of 1880, was 91,519 tons; and a similar comparison, applied to the shipments generally, exhibits a falling off of 85,233 tons. The anticipated compensation was thus only actually realised to the extent of 6286 tons. Moreover, the decline in the shipments of our pig-iron to the United States appears, if anything, to be becoming more severe month by month. Thus, while the declension in the first two months of this year was 91,519 tons, February alone contributed 51,003 tons to this unwelcome total. Instead of their having been any improvement in the American demand during the last few weeks matters have thus, if anything, been gradually going from bad to worse.

Symptoms have also not been wanting that the American railroad interest is beginning to show much less strength. In the last week of February there was something like a panic on the New York market. The fall in prices was severe, and at this present writing the recovery has still only been partial. We do not wish to be alarmists, or to attach too much importance to this incident. It is an excuse for it was the unsatisfactory treatment of the refunding ques-

tion by Congress; but this apology seems to us to be not altogether satisfactory. The real fact, we fancy, is that the commitments of the Americans in regard to new railroads have become something enormous; that their strength is consequently a little overtaxed; and that the New York market for public securities has accordingly become weak and feverish. The resources of the Americans have, no doubt, grown very large, and the openings which present themselves in the United States for the employment of capital are, no doubt, very tempting; but still everything may be overdone.

THE RATING OF MINES.

The question of the rating of mines is now causing a good deal of interest in several districts, and is evidently extending. Many mineowners have been working at a loss, the only persons benefited being those that they employ, yet they are called upon to pay towards the rates a much higher sum than any other class of persons engaged in business. Not only do they keep a great many families off the rates by finding work for the heads of them without any profit to themselves but they are called upon to contribute largely to those with whom they are in no way connected. Farm labourers in many districts are those who absorb the greater part of the poor rates, yet farmers are not by any means large contributors to the rates, and as they are usually appointed guardians of the poor they take care of themselves, and think that mineowners, who are looked upon as capitalists by them, should be made to relieve all other ratepayers by the amount they are made to pay. A few days ago the question was brought forward at a meeting of the Guisborough Guardians, who are strongly opposed to relieving the mineowners from the over taxation of which they complain. A petition was read from the Dalton-in-Furness Local Board on the subject of the rating of mines. The petition stated that several memorials had been presented by the owners and lessees of mines, and that a deputation had waited upon the President of the Local Government Board in support of them, the basis asked for by the mineowners being the same as land and railways, as set forth in the Public Health Act, 1875—that mines be assessed at one-fourth of their net value. This proposal the Dalton-in-Furness Board intended to oppose, and is now seeking for the co-operation of the various boards of guardians in other mining districts.

The West Cumberland owners of ironstone mines are assessed on the same principle as houses and buildings, the full rateable value, which we need scarcely say, is most unfair. Coal mines are differently rated, and in Durham we find that 25 per cent. is deducted from the gross estimated rental to ascertain the rateable value. Still there is no rule laid down for the assessment of mines, so that a good deal is left to the person who values and to the system which he adopts. In Derbyshire, for instance, in one district 25 per cent. is deducted from the gross estimated rental for the purpose of arriving at the rateable value; in another district 1-5th is deducted, whilst the gross rental is arrived at by estimating the number of loads the mine is likely to produce during the year, and a charge of 8½d. per load is then made upon such estimate, which is about equal to 7½ per cent. on the value of the coal raised. Such are the anomalies in districts close to each other as regards coal mines. In Lancashire itself, where no deductions are made from the gross rental as far as regards ironstone mines, the coal mines are treated differently; a deduction is made of from 15 to 25 per cent. from the gross estimated rental, but which is arrived at in different ways. In one instance the basis is the mine rent or royalty, in another the amount is arrived at by taking the quantity of coal raised at from 1s. to 1s. 6d. per ton. In Yorkshire, in the Guisborough Union, the ironstone mines are rated at the tonnage price for which such mines might reasonably be expected to let, and for delivering the rateable value 1-6th part is deducted, whilst in the Malton district there is a 10 per cent. reduction from the gross estimated rental. At the lead mines, in the same county, 25 per cent. is allowed for depreciation of plant, &c. From the above statement it will be seen that there is no fixed principle for the rating of coal and ironstone mines, so that some districts are placed in a much better position than others. Coming to the purely metalliferous mines, it appears that the copper and tin mines are rated to the full extent, the rateable and gross estimated rental being the same, the basis being the dues on ores sold, and in one or two instances on the minimum rent paid to the landlord. In Wales a different state of things prevails.

In the Holywell Union lead mines are placed on the same footing as those raising coal and ironstone, 20 per cent. being deducted from the gross royalty to arrive at the rateable value, and 10 per cent. upon the buildings. In Montgomeryshire, in the Machynlleth Union, in the rating of the lead mines, no deduction is made from the royalty paid, but in the Newton and Llanidloes Union, in the same county, the gross estimated rental is arrived at by the amount of dues and fixed rent, if any is payable; but where the dues are reserved in kind the engines, machinery, &c., are separately rated. The rateable value, however, is the same as the gross estimate; but for the plant, machinery, &c., which are separately rated, a deduction of 15 per cent. is made, so that the lead mines, which have a gross estimated rental of 10,038½, are rated at 9482½. It then appears that in the same county mineowners are differently rated, in some cases the gross estimated rental and the rateable value being the same, whilst in others deductions are made varying from 10 to 25 per cent. In some Unions, too, the valuation is made by a professional surveyor, in others by the overseers or assistant overseers. Nothing, indeed, can be more unfair than the present way in which mines of every description are valued for rateable purposes. Some mineowners cannot complain, especially those who have 20 or 25 per cent. deduction made; but it is different with those whose gross rental is also the rateable value. Mines, more especially those that have been long worked, depreciate year by year in value as the mineral gets worked out, so that the time will arrive when the mine must be abandoned, when the plant and machinery will be of but little value. There are matters which should be taken into consideration by those who have to value mining property. The least, then, that should be asked for is some general principle for the levying of rates on mines, for a uniformity should be the rule, which is not now the case. Mineowners have undoubtedly a grievance as regards rating, for, as we have before stated, they are the most heavily-taxed of any body of ratepayers, and they are not asking for too much when they seek to be rated on the basis set forth in the Public Health Act of 1875.

METALLIFEROUS MINES REGULATION ACTS—NEGLECT TO FENCE DANGEROUS PLACES.—An important case has been decided against the New Rhosydd Slate Mining Company, whose quarries are near Festiniog, at the Merioneth Petty Sessions. Their agent was summoned under the Metalliferous Mines Regulation Act for omitting to securely fence a certain bridge in the mine, and to have a board at the bottom of such fencing to prevent stones falling over the side in contravention of the special rule, No. 55. Mr. Cartwright, of Chester, appeared for the prosecution, and Mr. H. Jones, of Portmadoc, appeared for the defendants. Mr. Cartwright said, in opening the case, and it afterwards appeared in evidence, that the proceedings were the first of their kind upon the special rules, and had been instituted under the direction of the Home Secretary. In the present case it was contended that in 1878 the then Secretary of State had proposed special rules, which had become established and binding upon the defendant's company. Rule 55 provided for fencing all bridges used in the workings upon each floor of the mine. The information, with six others before the justices, showed an omission and neglect of fencing the bridges on the part of the company or their agent upon several floors of their mine, whereby they had respectively become liable to the penalties directed to be imposed by the 31st section of the Act. As showing the importance and value of the rule, the following facts happened:—On Dec. 1 Llewellyn Thomas, a labourer, employed in the mine upon floor 1, whilst looking after the tram wagons had fallen from chamber C, on floor 4, down to floor 5, nearly 40 ft. The man, although seriously injured, recovered. Llewellyn Thomas and the Inspector of the North Wales district (Mr. Foster) were then called, and gave evidence of the facts stated, Mr. Foster putting in written notices of the accident to Thomas and a certified copy of the "special rules." Mr. J. H. Jones for the defendants said

he could not resist the evidence of the omission to fence and of the accident that had happened to the man Llewellyn Thomas, but he wished to take the opinion of the Court as to the binding effect of the special rules upon the defendants, this being the first case under the rules in that district. It was not the case of rules proposed by the owners of the mine. He opposed the admission of the certified special rules in evidence, and contended practically there was no case. It was replied that *prima facie* under section 30 of the Act the certified copy of special rules under the hand of the Inspector which had been put in evidenced the correctness of the rules, and the fact that they were duly established; the onus was then thrown upon the company and those who contested the establishment of the rules to show that all the preliminary steps which the Act required had not been performed by the Secretary of State. After some discussion upon the legal bearings of the case the Inspector having said he was now satisfied with the fencing of the bridges, which the defendants had perfected, the Bench said they would, under the circumstances of the case being the first, put a nominal fine upon the defendants of 20s. in the first case, and 5s. each upon all the other informations, with the costs.

THE AMERICAN TIN TRADE—STATISTICS OF TIN.

Feb. 1.—Stock in all hands, New York, Boston, and Philadelphia	Tons	3210
Imported during Feb., Straits and Malacca, to New York	870	
" " " Australian, " "	82	
" " " L. and F., " "	10	
" " " Banca, " "	3=	965
Consumption—During February	Tons	4175
Total spot stock		3375
Afloat to date, ex Nov., Dec., and Feb., sail shipments...	330	
Ex January and February steam shipments	320=	650

Totals in all hands, spot and afloat	Tons	4025
The severe weather throughout the month seriously checked the free distribution of merchandise from our large cities to the interior, and, in consequence, the deliveries of all metals have been below the average. During the first fourteen days tin remained quite steady at 20½ c. to 20 c.; but the business was confined almost solely to furnishing consumers in and about New York, Boston, and Philadelphia, transportation to all distant points being impossible. Notwithstanding the light shipments from the Straits for the first half of February, being only 50 tons to the United States, against 900 tons for same time last year, our market gradually declined for jobbing parcels to 19½ c. at the end of the month. The small deliveries, together with the flurry in the monetary affairs, also the weakness of the London market, had the effect of bringing out sellers to the extent of about 250 tons, which were quickly absorbed by importers and our most conservative dealers at 19½ c. to 19½ c. cash, who were quite content to add to their stocks at fully 5 per cent. below cost of importation. Dealers, as a rule, are carrying very light stocks, while consumers have bought only for their immediate necessities; but at the close of the month considerable anxiety was shown to replenish on the part of both the smaller dealers and consumers. Now that our floating supply of tin from the East has been reduced by late arrivals to hardly one month's consumption it may be once more of interest to compare the shipments of the past three months with those of the same period of last year, comprising only Straits, Billiton, and Cornish, as Australian tin to arrive can only be estimated.		
1879—December shipments of Straits to United States	Tons	1275
1880—January " " " "		1450
February " " " "		1080
Billiton, floating, including February sale		1165
L. and F. and refined		435
Total shipments in three months		5405
1880—December shipments of Straits to United States	Tons	535
1881—January " " " "		250
February " " " "		100
Billiton, " " " "		nil
L. and F. and refined		nil

Total shipments in three months

In looking at the extraordinary disproportion of these supplies it necessarily becomes a question what has become of the tin, the major part of which we ought to have secured during the last three months? Great Britain appears to have absorbed about 2300 tons of Straits and Malacca over and above that taken last year, the balance having been shipped to India and China, while 1200 tons of Billiton have been taken for Holland and France. Thus, the metal has not been left in stock in the ports of the East, where it might ultimately have caused a serious decline in those markets, and thus enabled our importers and dealers to pick it up at their convenience and at their own valuation. It now remains to be seen how long we can continue to reduce our available stocks without suddenly finding ourselves under the necessity of actively competing in distant markets, where our wants must be fully known. Our closing quotations to-day 19½ c. to 19½ c. for Straits and Malacca on the spot, arrivals, none offering; Singapore quotes \$27.40; Penang, \$26½; Exchange, 3s. 9½d.; London, 88½ spot; 89½ futures.

New York, March 2. EDWARD P. WHITE.

DEVELOPMENT OF THE RESOURCES OF ALGERIA.—The annual Congress of the French Association for the Advancement of Science will take place this year at Algiers on April 14. Excursions will be organised throughout the country and every facility will be afforded to the numerous distinguished guests who are expected to arrive for studying the riches and beauties of the neighbourhood. The country abounds in mineral riches and relics of archaeological interest, while the study of the manners and customs of the people and the rich scenery of the Atlas Mountains will tempt many who would hardly have undertaken the journey in the mere interests of science. The French railway companies have consented to carry members at half prices, taking full fare for the passage out and giving a free return. The Spanish railway companies have consented to somewhat similar arrangements, while the French Government has placed at the disposal of the members of the association one of their war ships, with a free passage from Marseilles to Algiers, calling at Port-Vendres. This vessel will leave Marseilles on April 11, call at Port-Vendres on the 12th, and arrive at Algiers on the 13th. She will return on or about the 23rd of April, calling again at Port-Vendres en route to Marseilles. Any gentleman desirous of joining the association and of having further details as to railways, transport, lodgings, &c., should address themselves to Mr. F. Maxwell-Lyte, F.C.S., F.I.C., Hon. Foreign Secretary of the French Association, at the Science Club, Savile-row, who will be happy to afford all further information on the matter and to receive applications for membership of the association.

COAL CUTTING MACHINERY.—In the process of under cutting the coal, technically called kirving, Mr. Leonard Short, of Backworth, Northumberland, proposes to use a machine consisting of a cast-iron frame or bed plate, carrying in suitable bearings between its sides a grooved roller, the height of which from the ground can be varied to suit the work to be done. In any of the grooves of this roller a heavy iron ram is supported, having at one end a socket to receive the cutting tool, which is secured therein by a key, and at the opposite end of the ram is a handle for the miner to hold it by. In the process of side cutting the coal vertically, technically called nicking, he uses a pillar, consisting of a tube having within it another tube, which pillar may be lengthened to suit the height of seam by loose pieces inserted at its lower end, and has in its upper end an ordinary screw, with a sharp point, to set up and fix into the roof of the seam, the lower end either fixing into holes provided for the purpose in the bed plate above described, or into a footstep with points to hold in the floor of the seam. This pillar carries upon it a frame, which

by a clip and hand screw can be fixed at any required height, and this frame carries on a short shaft a roller, upon which the ram before described rests.

SOUTH DEVON UNITED.

The enormous advantages which result from preventing even the appearance of conflict between capital has been frequently pointed out in the columns of the *Mining Journal*, and few have shown their appreciation of that view than Mr. Peter Watson, who, from the time he undertook the office of managing director of Devon Great Consols, has been unremitting in his efforts to convince the working men that their interest and that of their employers are identical, and to convince his fellow shareholders that unless the workmen were fairly dealt with, and satisfied that full justice was being done them, success was impossible. By lowering wages when serious depression existed, he avoided the necessity for calls, which would have closed the mines and reduced the workpeople to starvation; but he was careful to give the men an advance even before the declaration of a dividend. The same feeling seems to have been exhibited by him in all the undertakings with which he has been connected.

The miners, surfacemen, women and children, 120 in all, were on Saturday last, through the kind hospitality of Mr. Peter Watson, the managing director, at his own expense treated to a bountiful dinner at Churchward's Hotel, Buckfastleigh, the purser, Mr. Moses Bawden, presiding, and Capt. Hooper, the manager, occupying the vice-chair.—The Chairman, after the usual loyal toasts, and before proposing Mr. Watson's health, read a communication written on Friday, which he had that morning received, in which Mr. Watson said: "I hope you will see that all enjoy themselves to-morrow at the dinner, as it is my great desire that all should be made happy and comfortable on the occasion." In reply to this the following telegram was forwarded to Mr. Watson from the dining-room:—"Thanks to your hospitality we have now enjoyed a splendid dinner, and wish you and Mrs. Watson long life, continued prosperity, and happiness." The Chairman, in speaking of Mr. Watson, referred to the energy that that gentleman displayed in the interests of mining, and the vast experience and judgment he brought to bear on those mines he associated himself with. Mr. Peter Watson's health was then drunk amidst great applause. The Chairman next proposed Capt. Hooper's health, and in doing so said that no matter how much the executive in London might work, unless they had a good man at the mines it would be of no avail; and from his knowledge of Capt. Hooper, for nearly 20 years, he was satisfied that the company had in him a thoroughly efficient manager.—Capt. Hooper said he was glad to see so many happy faces around him, and assured the men that so long as they did their duty to the company they would find in him one who was always ready to help them. He was glad that they had such a magnificent property.—Mr. Martin's and the Chairman's health were next proposed.—The Chairman, in replying, said that it gave him great pleasure, in Mr. Martin's absence, to respond to the toast. He had not known Mr. Martin for any great length of time, but he had known him long enough to feel assured that he was, in every sense of the word, a gentleman; and all in the room had cause to be thankful to Mr. Martin for having so manfully, and at such great cost to himself, stuck to the South Devon Mines, as, but for him, it was a grave question whether the property would that day have been in such a splendid position. Other toasts followed, and were duly responded to.

DEVON FRIENDSHIP.—All the necessary works are being pushed on as fast as possible. Capt. Daw writes from the mine under date March 15, "The adit end is started to drive east in a course of mundie as large as the end, and how much larger I cannot say. The lode in the rise, working for copper, is 4 ft. wide, composed of quartz, peach, mundie, and black copper ore—a fine looking lode. The new water-wheel will be about the power of a 70-hp. steam-engine." It is an old saying that "mundie rides a good horse," so the anticipated richness of Bennett's lode for copper and tin at deeper levels is so far strengthened by the above description of the lode at the adit. Capt. Charles Thomas (the managing agent) writes that no time shall be lost in draining the levels, and when that is accomplished the returns and profits will be largely increased. This important and valuable property is gaining more and more in public favour, as evidenced by the large purchases of shares in the company which continue to be made by influential members of the Stock Exchange and others.

NORTHERN (Lead Mine).—The different points have laid open good ore ground, and the manager estimates that there are 75 tons of ore dressed and in course of being dressed, which will shortly be ready for sale if the present fine weather continues.

SORTRIDGE CONSOLS.—In last week's *Journal* it was stated that there was the prospect of one of the most valuable discoveries of the day being made at this mine, in a short time, and a great property proved to exist at Sortridge. We little thought that in only another week we should have to report an improvement in the lode, which is a strong indication of a rich lode being nearer at hand than we thought. A letter from Capt. Daw, who was at the mine on Thursday, states:—"I am pleased to inform you that the lode opened on to the west of the cross-course is full 4 ft. wide, composed of capel, quartz, gossan, and rich copper ore. Although only a few feet below the surface, a finer looking lode cannot be seen. The men will shortly begin to clear the adit, and the air shaft will be started immediately. My opinion is ore in paying quantities will soon be found not far from surface." Capt. Skewes' report on this fine property will follow soon. We are now more than ever confident that a discovery will shortly be made that will place the value of this property in the market, at least as high as it went to in its most sensational days.

EAST WHEAL ROSE.—Mr. Heard was made to say at East Wheal Rose meeting (but subsequently corrected in the local newspaper) that dividends of 80% per share were declared twice every month. Mr. Heard's statement was that at the bi-monthly meetings then held—meetings held once in two months—dividends of 80% per share were declared. The utmost dividend declared at any one meeting was 85% per share—10,880.

INDIAN GOLD MINES.—Mr. Henry Tapp, M.E., who arrived home from India in November last with information obtained personally during a visit to the Wynad gold fields, has again left for India, and will this time inspect besides the Wynad various rich districts, destined at no distant date to become the scenes of active operations. Mr. Tapp's name will be recollected in connection with the Cherambadi Company, floated some three months since, and it is not doubted that his opinions will be appreciated by capitalists.

EL CALLAO.—The report of the directors for the year ended Dec. 31, prepared for presentation to the shareholders, and just issued at Ciudad Bolivar, gives an interesting account of the position and prospects of the enterprise. The company has a general credit balance of 9,430,510½ bolivars, and another table shows that since 1875, when the payment of dividends was commenced, there has been distributed to the shareholders no less than 7,599,200 bol., in addition to which the company has a reserve fund of 296,085 bol. and 94,436½ bol. cash in hand. The superintendent, Mr. C. C. Fitzgerald, C. and M.E., gives a detailed report upon the various operations at the mines.

THE DESERT OF ATACAMA—SAN PEDRO MINES.—An interesting report on the property of the San Pedro (Chili) Copper Mining Company by Mr. R. F. Pechey, financial agent, has just been received in London. The formation is chiefly granite, and the surface, bare of vegetation, is covered with broken granite boulders, through which lodes and veins may be traced in every direction, the entire absence of soil rendering the croppings distinctly visible. The San Pedro, San Antonio, and Cuba settlements occupy the side and reach the top of one ridge, facing W.N.W., or towards the coast, while the St. Elena workings stand on the face of a ridge running at right angles to the former, and separated therefrom by a narrow gully, which forms a continuation of the plain, and at certain seasons a water-course. These mines are the only ones on which much labour has been, so far, expended; but, as I said above, the whole surface is a network of lodes, and my own opinion is that the San Pedro proper is only one of a number of rich mineral deposits. The San Pedro Mine will always be an expensive mine to work, on account of its depth and the soft nature of the ground. As to the chance of ultimately recovering the manto, Capt. Lean is very sanguine. This opinion most practical miners coincide with. Taking into consideration the necessity of obtaining ore to furnish down freights, and the promising appearance of the workings at San Antonio, with the prospect that for a small expenditure payable ore may be met with there, I have, continues Mr. Pechey, earnestly advised Capt. Lean to place men there at once. With the company's property I must not forget the watering place at Chanarcito, about 40 miles from San Pedro. As it is the only place where water can be found in 60 miles of desert it forms a useful adjunct to the company's mines. At the present time the great drawback to the development of mining properties in Chili is the scarcity of labour, caused by the war between Chili and Peru.

Mr. W. H. Fox, late with Messrs. Cooper Brothers and Co., of Georgetown, Mansion House, will carry on business at 17, Austin Friars, as a chartered accountant.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.									
Shares.	Divid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.	Divid.	Last wk.	Clos. pr.
3933 Blue Hills, t, c, St. Agnes	4 6	6	4	3 1/2	4	0 2	0	0	Sept. 1880
10000 Caron, t, Cardigan	2 0	0	2	1 1/2	2	0 0	0	0	Oct. 1878
10000 Caron Brea, c, t, Illogan	56 7	6	125	127 1/2	130	308	0	0	0
10240 Devon Gt. Consols, c, t, Tavistock	1 0	0	12 1/2	12 1/2	118	7	0	0	Dec. 1880
4296 Dolcoath, c, t, Camborne	10 14	10	58	56 5/7	120	11	3	0	Mar. 1881
30000 East Craven Moor, s, t, Pateley Bridge	1 0	0	0	0	0	0	0	0	Aug. 1880
6400 East Pool, t, c, Illogan	0 9	9	35	34 1/2	22	17	9	1	0
12500 Frongoch, t, c, Cardigan (10000 sh. iss.)	2 0	0	4 1/2	4 1/2	0	13	10	0	0
40000 Glasgow, c, t, Illogan	2 10	0	3 1/2	3 1/2	0	5	0	0	0
8000 Grosvenor and Merilyn Cons., t, c, Flint	4 0	0	18	17 1/2	26	14	0	0	0
13000 Great Lacey, t, c, Isle of Man	0 6	0	8	7 1/2	216	0	0	0	0
6400 Green Hurth, t, c, Durham	2 0	0	3	2 1/2	0	18	4	0	0
20000 Groswinlow, t, c, Cardigan	2 0	0	3	2 1/2	0	18	4	0	0
10240 Gurnisale (Clitters), t, c, t	2 2	0	5	4 1/2	0	15	9	0	0
2800 Isle of Man, t, c, Isle of Man	25	0	0	0	83	5	0	0	0
20000 Llanidloes, t, c, Llanidloes	6 0	0	2 1/2	2 1/2	0	15	0	0	0
4000 Lisburne, t, c, Cardigan	18	15	0	0	605	10	0	0	0
10000 Mellanear, c, Hayle	2 0	0	0	5 1/2	1	3	6	0	0
90000 Minera Mining Co., t, Wrexham	5 0	0	10	9 1/2	1	3	6	0	0
20000 Mining Co. of Ireland, c, t, c	7 0	0	3 1/2	3 1/2	24	3	0	0	0
80000 Mon, t, c, Anglesea	5 0	0	15	14 1/2	0	10	0	0	0
5328 North Busy, t, c, Blackwater	10	10	2	1 1/2	3	4	0	0	0
41829 North Hendre, t, c, Wales	2 10	0	0	0	3	10	0	0	0
4146 Ditto	1 5	0	3 1/2	3 1/2	0	7	0	0	0
20000 North Levant, t, c, St. Just	13	6	8	7 1/2	4	16	0	0	0
5000 Penhall, t, c, St. Agnes	3 17	6	2	1 1/2	3	17	0	0	0
6000 Pennant, t, c, North Wales	5 0	0	5	4 1/2	0	10	0	0	0
12000 Phoenix United, t, c, Link	5 10	3	2 1/2	2 1/2	3	2	6	0	0
18000 Pr. Patrick, s, t, (als. 12000 p.f. 10 p.c.)	1 0	0	2 1/2	1 1/2	0	13	6	0	0
10000 Red Rock, t, c, Cardigan	2 0	0	2 1/2	1 1/2	0	4	0	0	0
12000 Roman Gravel, t, c, Salop	7 10	0	12 1/2	11 1/2	8	6	0	0	0
4000 Rhyddol, t, c, Wales	10	0	0	0	0	5	0	0	0
512 South Cardon, c, St. Cleer	1 5	0	5 1/2	50 5 1/2	749	0	0	0	0
6123 South Condurrow, t, c, Camborne	6 5	0	10	9 1/2	8	2	0	0	0
9000 South Daren, t, c, Cardigan	1 10	0	2 1/2	2 1/2	0	4	0	0	0
4500 South West Wales, t, c, Illogan	7 12	4	9 1/2	8 1/2	40	15	6	0	0
110000 Tankerville Gt. Consols, t, Salop	1 0	0	0	0	16	3	0	0	0
6000 Tincroft, c, t, Pool, Illogan	11	10	18	18 1/2	19 1/2	60	8	0	0
15000 Van, t, Llanidloes	4 5	0	15	14 1/2	25	3	0	0	0
3000 West Chiverton, t, c, Perranzabuloe	20	12	6	3 1/2	3 1/2	0	10	0	0
512 West Tregus, c, Redruth	95	10	45	40 1/2	33	0	0	0	0
1200 West Wheel Scton, c, Camborne	26	10	20	19 1/2	20 1/2	23	0	0	0
6000 West Basset, c, Illogan	4 0	4	15	16 1/2	27	2	0	0	0
12000 Wheel Crebhor, c, Tavistock	2 4	0	4 1/2	4 1/2	0	10	3	0	0
1024 Wheel Eliza Consols, t, St. Austell	18	0	0	0	42	10	0	0	0
6000 Wheel Grenville, t, Camborne	15	0	0	9 1/2	0	7	6	0	0
4295 Wheel Kitty, t, St. Agnes	5 4	6	2 1/2	2 1/2	12	13	6	0	0
3000 Wheel Peavor, t, Redruth	7 11	0	20	21	7	8	6	0	0

FOREIGN DIVIDEND MINES.

Shares.	Divid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamillos, t, Spain	2 0	0	1 1/2	3 1/2	2 2	9
130000 Almada and Tinto Consols, s, t	1 0	0	5 1/2	3 1/2	0	6
20000 Australian, c, South Australia	7 0	6	1 1/2	1 1/2	1	5
15000 Bayside Copper, c, California	4 0	0	2	1 1/2	0	16
20000 Cape Copper Mining, t, South Africa	7 0	0	44	42 1/2	41	7
35000 Cesena Sulph. Co., Romagna, Italy	10	0	0	0	1	0
50000 Copiapo, c, Chili (84 shares)	3 8	0	2 1/2	2 1/2	1	12
23500 Eberhardt and Aurora, c, Nevada	10	0	0	3 1/2	1	8
70000 English & Australian, t, c, S. Aust.	2 10	0	1 1/2	1 1/2	2	18
25000 Fontuna, t, Spain	2 0	0	6	4 1/2	7	12
60000 Fortino & Bolivia, c, New Gran.	2 0	0	5	4 1/2	0	6
200000 La Plata, s, t, Bolivia	2 0	0	1 1/2	1 1/2	0	6
150000 Llaneros, t, Spain	3 0	0	7 1/2	5 1/2	18	14
60000 New Quebrada, c, Venezuela	5 0	0	6 1/2	5 1/2	0	2
1000 Ditto, Debutentes	100	0	100	95	100	6
50000 Oregon, c, Oregon, U.S. (pref. sh.)	4 0	0	0	6 1/2	0	2
50000 Pampulico, c, Chili	4 0	0	6 1/2	6 1/2	0	2
25000 Pitangui, c, Brazil (in 6000 £1 pd.)	10	0	0	0	1	0
10000 Pontgibaud, s, t, France	20	0	17	15	17	28
100000 Port Phillip, c, Clunes (42 shares)	1 0	0	0	3 1/2	1	14
84000 Richmond Consol., c, Nevada	5 0	0	101	99	101	0
150000 Rio Tinto, c, Sp. Coup. Bds., Hueval	10	0	2 1/2	2 1/2	0	18
40000 Santa Barbara, c, Brazil	10	0	2	1 1/2	0	10
120000 Scottish-Australian Mining Co., t	10	0	2 1/2	2 1/2	15	0
80000 Ditto, New	10	0	1 1/2	1 1/2	15	0
50000 Sentein, s, t, c, Arige, France	1 0	0	1 1/2	1 1/2	0	2
22500 Sierra Buttes, c, California	2 0	0	1 1/2	1 1/2	2	1
40625 Ditto, Plumas Eureka	2 0	0	2 1/2	2 1/2	2	1
253000 St. John del Rey (45 Stock and multiples dealt in)	265	275	0	0	5	0
20000 Tolima, c, Colombia	5 0	0	0	0	11	9
25000 Victoria (London), c, Australia	1 0	0	0	0	2	18
15000 Western Andes, c, Colombia	5 0	0	10 1/2	10 1/2	3	14
2100 W. Prussian (5500 pref. sh. £10 pd.)	10	0	10 1/2	10 1/2	3	14

Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Divid.	Last wk.	Clos. pr.
30000 Alston United, t, Cumberland	1 0	0	1 1/2
12000 Asherton, t, Carnarvonshire	5 0	0	3 1/2
10000 Atlantic, c, t, (res. shares 28,000)	1 0	0	1 1/2
36000 Basset & Buller Cons., c, t, Illogan	1 0	0	0
11583 Bedford Unit., c, t, Tavistock (£1 liab.)	0 6	0	2
25000 Belvidere, t, c, Roche	1 0	0	0
30000 Bettws-y-Coed, t, c, (20000 sh. issued)	1 0	0	0
30000 Blaen Caelan, t, c, Cardigan	3 0	0	0
30000 Bodidris, t, c, Denbighshire	1 0	0	1 1/2
8000 Botallack, t, c, St. Just	31	10	0
10000 British, s, t, Wrexham	2 0	0	0
20000 Bwlch United, t, c, Cardigan	0 17	6	2 1/2
50000 Cambrian, s, t, c, Cardigan	2 0	0	2 1/2
6000 Carn Camborne, t, c, Camborne	0 2	6	4
20000 Carnarvon, c, Carnarvonshire	1 0	0	1 1/2
20000 Central Foxdale, t, c, I. of Man (21 sh.)	1 17	6	0
25000 Coed Mawr Pool, t, c, Carnarvon	2 0	0	0
2450 Cook's Kitchen, t, Illogan	23	19	12
15500 Crook Grange United, s, t	1 0	0	3 1/2
6400 Crook Burn, t, c, Cumberland	0 10	0	1 1/2
14000 Crosswood Mining Lands, t	1 0	0	1 1/2
15000 Dwm Dwyfor, t, c, Carnarvon	1 0	0	0
25000 Eryn Pryf, s, t, Cardigan	1 0	0	0
20000 Deep Level, t, Flintshire	1 0	0	0
1538 D'Eresby Mount, t, c, Llanrwst	20	0	50
20000 Denbighshire Consolidated, t	3 0	0	2 1/2
12000 Derwent, t, c, Durham	4 0	0	2 1/2
100000 Devon, c, t, Tavistock (151652 sh.)	0 1	0	2 1/2
60000 Devon Friendship, c, t, Tavistock	1 0	0	2 1/2
12000 Devon Great United (21 shares)	1 0	0	2 1/2
20000 Devonshire, s, t, Lydford	1 0	0	1 1/2
10000 Dobby Syke, t, c, Durham	0 19	6	3 1/2
6000 East Botallack, t, c, St. Just	0 4	0	2 1/2
6144 East Canard, c, St. Cleer	3 14	6	1 1/2
4000 East Chiverton, t, c, Perranzabuloe	19	9	2
12000 East Crebhor, c, Tavistock	0 10	0	3 1/2
15000 East Devon Cons., c, t, Buckfastleigh	2 0	0	3 1/2
12000 East Herodotus, s, t, Liskeard	1 0	0	1 1/2
20000 East Long Lake, s, t, Salop	0 10	0	1 1/2
21000 East Roman Gravel, t, c, Salop	0 10	0	1 1/2
18000 East Van, t, Llanidloes	5 0	0	2 1/2
4096 East Wheel Buller, t, c, Gwynnapp	0 10	0	1 1/2
2096 East Wheel Lowell, t, c, Helston	14	3	6
10000 Fortescue (Stannagyn), s, t	1 0	0	2 1/2
12000 Gawton, c, Tavistock (21 shares)	1 14	0	1 1/2
14000 Glenroy, s, t, Isle of Man	4 0	0	3 1/2
30000 Gobbett, t, c, Dartmoor	1 0	0	1 1/2
10000 Gover Consols, t, St. Austell	1 0	0	1 1/2
25000 Great Consols, t, St. Austell	1 0	0	0
20000 Great Dyfford (10000 sh. issued)	1 0	0	1 1/2
12000 Great Highway, t, c, Flintshire	5 0	0	5 1/2
6000 Great West Chiverton, t, c, St. Agnes	1 0	0	3 1/2
20000 Griffith, s, t, Carnarvon	1 0	0	2 1/2
10000 Gwyn-y-Mynydd, s, t, Flintshire	4 0	0	2 1/2
70000 Gwydyr Amal, s, t, c, Carnarvon	1 0	0	0
1200 Hartington Moor, s, t, c, Derby	1 1	0	1 1/2
6400 Harwood, t, c, Durham	0 15	0	1 1/2
12000 Herodotus, t, c, near Liskeard	0 8	9	1
18000 Hingston Down, c, t, Tavistock	0 11	0	1 1/2
15000 Indian Queens Cons., t, c, St. Columb	1 0	0	2 1/2
20000 Kirk Michael, t, c, (20000 unissued)	1 0	0	1 1/2
6000 Killfretth, t, c, Chacewater	3 15	0	3 1/2
25000 Kit Hill Gt. Cons., c, s, t, (21 sh.)	0 15	0	1 1/2
15000 Lady Ann, s, t, Llanidloes	1 0	0	0
9000 Lady Ashburton, t, c, Cardigan	0 17	0	1 1/2
15000 Lady Bertia, s, t, Tavistock	0 17	0	1 1/2
12000 Ladywell, t, c, Salop (12000 p.f. also)	2 10	0	0
10000 Langstone, s, t, c, Devon	1 0	0	0
5000 Levant, c, t, St. Just	11	0	7
15000 Llandegla, t, c, Wales	1 0	0	1 1/2
10000 Llanidloes, s, t, Helston	1 0	0	1 1/2
5120 Lovell, t, Wendron	0 16	0	1 1/2
37500 Llanrwst, t, c, Carnarvon	2 0	0	0
9000 Marke Valley, c, t, Llanidloes	5 16	0	1 1/2
18000 Marston, t, c, South Wales	1 0	0	1 1/2
6000 Medlyn Moor, t, c, Wendron	3 15	0	1 1/2
28000 Mid-Devon, s, t, c, (17000, 34, 4d. pd.)	0 6	8	0
15000 Monkstow, s, t, c, Devon	2 0	0	2 1/2
20000 Mynnyd Consols, s, t, Flint	1 0	0	0
10000 Mynydd Goredau, t, Cardigan	3 12	6	3
25000 Moray Firth (18000 issued)	2 0	0	0
12000 Moria Du, s, t, c, Anglesea	1 0	0	1 1/2
6144 Mount Carbis, t, c, Redruth	1 0	0	2 1/2
30000 Mount Carbis, t, c, Redruth	1 0	0	2 1/2
8000 New Dolcoath, t, c, Camborne	3 0	0	6 1/2
6000 New Kitty, t, St. Agnes	0 5	6	1 1/2

NON-DIVIDEND MINES—continued.

Shares.	Divid.	Last wk.	Clos. pr.
12000 New Penrose, * t, c, Helston (11 sh.)	0 10	0	1 1/2
3500 New Tincroft, t, c, Lelant	6 0	0	1 1/2
6000 New West Cardon, c, Liskeard	0 2	6	1 1/2
30000 New Wheel Peavor, t, Redruth	0 10	0	2 1/2
35000 New Wye Valley, t, c, Montgomery	1 0	0	1 1/2
20000 North Alfred, c, Phillack	0 10	0	1 1/2
10000 N. D'Eresby Mount, * t, c, Carnarv.	1 0	0	1 1/2
12000 North Herodotus, t, c, Liskeard	0 5	0	3 1/2
50000 North Molton, * c, m, t, Devon	1 0	0	—
6000 North Penstruthal, t, c, Gwynnapp	1 5	0	2 1/2
2336 North Trekerby, c, St. Agnes	8 17	10	0
8000 Northern, * t, c, Durham	1 0	0	1 1/2
12000 Pandora, * t, c, Carnarvon	2 0	0	1 1/2
1812 Pant-y-Mwyn, * t, c, Mold	2 0	0	2 1/2
20000 Parka Mines Consols, * t, c, St. Columb	1 0	0	2 1/2
6000 Paracombe, * s, t, c, Devon	0 5	0	0
45000 Parys Corporation, * c, Angleses	1 0	0	3 1/2
7500 Pateley Bridge, t, c, Yorkshire	1 0	0	3 1/2
15000 Ditto (also 7500 sh. not issued)	0 19	0	0
6000 Pen-an-drea, t, c, Redruth	1 5	0	2 1/2
600 Pendarvas United, c, Camborne	8 0	0	—
12000 Pen-yr-Orsedd, t, c, Flintshire	1 0	0	1 1/2
10000 Phoenix, * t, c, Waler	2 0	0	0
12000 Plymliam, t, c, Llanidlo	2 0	0	0
10000 Polrose, t, c, Cornwall	0 11	0	1 1/2
10000 Port Nigel, * s, t, c, Carnarvonshire	2 0	0	2 1/2
12000 Prince of Wales, c, s, Calstock	0 10	0	1 1/2
30000 Silver Hill, * c, Callington	1 0	0	1 1/2
50000 So. Cambrian, * t, c, Cardiganshire	1 0	0	1 1/2
30000 South d'Eresby Mountain, * t, c	1 0	0	1 1/2
35000 So. Devon Unit, * c, t, Buckfastleigh	1 0	0	3 1/2
6000 South Devon United, * t, c, Plymouth	0 0	0	1 1/2
30000 South Roskear, t, c, c, Camborne	8 5	0	0
6000 South Tolarne, t, c, c, Camborne	4 4	0	1 1/2
40000 South Wheel Crebor, * c, Tavistock	1 0	0	2 1/2
2043 South Wheel Crofty, c, t, Illogan	18 7	0	11 10 10 1/2
30000 St. Just United, Cornwall	2 10	0	—
30000 Taly-sant, * s, t, c, Cardiganshire	1 0	0	—
40000 Tamar, s, t, c, Bearston	1 0	0	1 1/2
6400 Teesdale, * t, c, Durham (pref.)	1 5	0	0
20000 The Hill, t, c, St. Stephens	1 0	0	2 1/2
10000 Temple, t, c, Cardigan	1 0	0	1 1/2
5000 Treleigh Wood, t, c, Redruth	6 1	0	—
12000 Trevince Consols, t, c, c, Gwynnapp	0 5	0	1 1/2
6000 Truro, * t, c, St. Columb	0 6	0	—
640 Trugo, t, c, Nermus, Flintshire	10 0	0	—
10000 Tyn-y-Fon, * t, c, Cardiganshire	1 0	0	1 1/2
11000 Un Van & Glyn, * t, c, (41500 other sh.)	2 0	0	3 1/2
10000 Vaughan, * t, c, Cardiganshire	10 0	0	—
15000 Violeur, t, c, Flintshire	1 0	0	—
15000 Vincent, * t, c, Altarnun	1 0	0	—
12000 West Assheton, t, c, Carnarvon	1 0	0	1 1/2
12000 West Cardon, c, St. Cleer	0 7	6	1 1 1/2
30000 W. Craven Moor, t, c, Pateley Bridge*	10 0	0	—
12000 West Crebor, c, Tavistock	0 5	0	3 1/2
10240 West Devon Consols, c, Calstock	1 0	0	1 1/2
10000 West Godolphin, t, c, Breage	0 10	0	2 1/2
12000 West Holway, * t, c, Flintshire	1 0	0	2 1/2
12000 West Kent, * t, c, c, Flintshire	1 0	0	3 1/2
20000 W. Lisburne, t, c, (11 sh.) Cardigan	1 0	0	1 1/2
30000 West Mary Ann, t, c, Menheniot	1 5	0	1 1/2
12000 West Pateley Bridge, * t, c, Yorkshire	1 0	0	1 1/2
12000 West Phenix, t, c, c, Cardaron	0 6	8	2 1/2
6000 West Polbreen, * t, c, St. Agnes	0 2	0	1 1/2
5130 West Poldice, St. Davy	5 5	0	4 3/4
2043 West Wheel Frances, t, c, Illogan	29 6	3	11 10 11 1/2
3000 West Wheel Peavor, t, c, Redruth	2 0	0	1 1/2
12000 West Wheel Peavor, t, c, Montgomery	1 0	0	1 1/2
6000 Wheel Agan, c, t, Illogan	14 6	0	7 5 9 1/2
6144 Wheel Bassett, c, t, Illogan	4 12	0	4 1/2
30000 Wheel Bays, t, c, Redruth	0 16	0	2 1/2
12000 Wheel Coates United, * t, c, St. Agnes	0 15	0	1 1/2
2585 W. Comf., & No. Tres., t, c, Gwynnapp	2 2	0	3 1/2
15000 Wheel George, * t, c, c, Carnarvon	1 0	0	2 1/2
12238 Wheel Jane, t, c, Kea	1 5	8	2 1/2
20000 Wheel Jamell, c, t, c, Redruth	0 11	0	2 1/2
22000 W. Honeywell, t, c, c, Redruth	2 0	0	2 1/2
12000 Wheel Luskey, t, c, Callington	0 1	0	3 1/2
20000 Wheel Owles, t, c, St. Just	7 3	0	—
6000 Wh. Prussia, & Cardew, t, c, c, Rdrth	1 10	0	1 1/2
12000 Wheel Russell, c, t, Tavistock	2 1	6	—
6000 Wheel Sisters, t, c, Lelant	3 0	0	2 1/2
40000 Wheel Uny, t, c, c, Redruth	15 16	0	3 1/2
4000 Ystwith, * t, c, Cardigan	10 0	0	3 1/2

RUSSIA COPPER COMPANY.

A general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, yesterday, for the purpose of considering and pronouncing "upon the scheme of arrangement or compromise between the said company and its debenture-holders and shareholders or contributors."

Mr. MUNN (Messrs. Munns and Longden) said the meeting was held under an order of the Master of the Rolls, who directed that Mr. Mackay, the liquidator, should occupy the chair.

Mr. RODERICK MACKAY then took the chair. The notice convening the meeting and the scheme of arrangement or compromise were taken as read.

The CHAIRMAN having drawn attention to a few clerical errors in the scheme as printed and circulated, said that after the meeting of shareholders held in December, at which the scheme, or one practically the same as the scheme now submitted, was discussed, the committee and himself sent a notice to the shareholders telling them what had been done at the meeting, and asking their assent or dissent. The result was that, including the proxies they had before the meeting and the shareholders who voted at the meeting, the scheme was supported by 19,500 shares out of 29,800 shares. It was fully discussed at the last meeting. It was merely to be submitted and voted upon. With regard to the company itself, since the last meeting he was glad to say things had gone as favourably as was then expected. The grain which was then spoken about had nearly all been sold up to the date of the last advice, and had probably had now all been sold at the very good prices which were then referred to. With regard to the smelting of copper, they had received a telegram from the superintendent stating that up to the end of February they had smelted 17½ tons, as against 14½ tons in the same period of the previous year. They were a little alarmed about the transport of ores from the mines, and the peasants' horses were very weak, and the superintendent was apprehensive as to the transport of the copper, but he was glad to say that an improvement had taken place in this respect, and that for the month of February the transports largely exceeded those of the corresponding month in any previous year; and he was pretty confident that they would go on smelting up to the end of June, so that, on the whole, things had improved rather than otherwise since the meeting in December last, and it was believed that the expectations then held out would be amply realised. He then called upon Mr. Munns to explain the resolutions which had to be submitted for the consideration of the meeting.

Mr. MUNN stated that one of the resolutions would be in the affirmative, and assenting to the scheme of arrangement or compromise, and the other would be in the negative, dissenting from the scheme. The shareholders must sign for the resolution affirmatively or negatively, so that there could be no mistake or misunderstanding as to their views.

Mr. MUNN, in reply to Sir J. SWINBURNE, said those who had received the proxies would sign for or against the resolution as directed. The liquidator and committee had received only one proxy dissenting from the resolution. Mr. MORGAN referred to the past history of the company, and said that too large a sum was undoubtedly paid for the property. He was aware that Mr. Mackay was appointed official liquidator, but he had yet to learn when he was appointed official liquidator. (Laughter.) They had paid 10s. for each of their shares, and they were now called upon to pay 40 per cent. more.

Capt. FLETCHER: Not 40 per cent., 20 per cent, and have their shares reduced in value, and if they did not pay this 20 per cent. the shares were to be confiscated. Some of the shareholders who could pay would not, considering that they would be throwing good money after bad, while others could not pay, and yet it was proposed to confiscate their property if the Master of the Rolls would allow them to do so. He considered that the whole scheme was an attempt to bolster up the debenture holders.

Mr. JONES, in reply to an observation of Mr. MORGAN's, said the whole of the shareholders had been furnished with a copy of the scheme before sending their proxies.

Mr. MORGAN doubted if the 100 who had signed the proxies knew what they were doing. The CHAIRMAN said the debenture holders would not agree that the scheme was favourable to them. The accounts for the last two years had shown that there was a balance after the payment of the interest on the Russian mortgages, and the debenture holders had clamoured for their interest; but the committee had considered that the money would be more useful for the shareholders to have it to strengthen the concern. They had managed to put the debenture holders aside, and they now said they would not only leave the debentures in the hands of the company, but they would agree to the funding of their arrears of interest, and to accept 6 per cent. instead of 8, which was an important concession.

Mr. MORGAN observed that the three years interest was to be funded at 8 per cent. The CHAIRMAN said that was so, but the debenture-holders were entitled to the whole of the arrears before the shareholders could get anything. Instead of confiscating the property, the debenture-holders were willing to leave their money with the company for six years. He merely wished to carry out the wishes of the majority of the shareholders. They were in the hands of a judge who would do them justice, and he hoped the scheme would be almost unanimously approved. He had no hesitation in saying that every shareholder who had sent a proxy would pay the amount required. The company had now turned the corner, and he was satisfied that in the present year they could earn the full interest charges, and have a surplus for the shareholders. The shareholders were only asked to pay 10s. and accept a liability of 12s., which it was expected would never be required to be called up.

Sir J. SWINBURNE asked what was to be done with the money so raised? The CHAIRMAN said they proposed in the first place to pay off the Russian mortgage, which carried 8 per cent., to fund the arrears of interest on the English debentures, reducing the interest from 8 to 6 per cent., and making the shares of the nominal value of 7s. instead of 10s. The 12s. would be called up in the course of three or six months. They had plenty of money to go on with the working of the company. The expenses had been reduced, and the smelting works at Pechora, which had always shown a loss, had been shut up. Sir E. VAN STRAUBENZEE, as a large shareholder and a debenture-holder, as well supported the scheme as the only chance of getting anything out of the company. He thought the debenture-holders had a great deal more to complain of than the shareholders.

The CHAIRMAN added that the new blast machinery was now in course of construction, and would be ready to send out when the Baltic opens next month. Mr. FLETCHER, in reply to a question, said they had not effected a sale of any portion of the property. In the present financial condition of Russia it would be useless to attempt a sale. The property was no doubt improving in value. Mr. MORGAN suggested that the property should be offered at a reduced price to Mr. Brodgen. (Laughter.)

A vote of thanks having been passed to Mr. Mackay and the committee, the shareholders proceeded to sign one or other of the resolutions, and the meeting closed.

[For remainder of Meetings see this day's Supplement.]

THE PIONEER MINING COMPANY.

The following is the report of Mr. H. B. Vercoe, dated the 17th inst. (C. C. Adley, managing director, Pioneer Copper Mine, Harlech):—

Since my previous inspection the underground operations have been mainly directed to the driving of the deep adit level south on the lead vein, and about 13 yards have been driven; the lode has increased in size from 2 ft. in width (when we commenced) to 4 ft., which is the width now in the extreme forepart; its character is all that we could wish to see at such a shallow depth, its composition being quartz, sulphur, clay-slate, and clay. The ground is soft and easy for exploring, and I have reduced the price of driving to 2s. per yard, at which price the men ought to be able to earn good wages. I intend continuing this drive until the junction of the cross branch seen in the adit cross-cut is reached; this I calculate will be done in a fortnight or three weeks, soon after which time I advise a shaft being sunk on the lead lode near the point of junction—say 60 yards below the adit. This can be done cheaply, as the ground is so favourable, and a small water-wheel should be erected for pumping. The copper vein can also be worked by short cross-cuts from the same shaft. I confidently believe that if this work is done you will open out a very valuable mine for both lead and copper. In my opinion, the lead vein will prove a very rich one when a fair depth is attained; it is very similar in character to the Tan-y-Bwlch Mine lode in Carnarvonshire, which has produced 100 tons per month of lead and copper for many years past.

Lead Mine, Holywell: I hope to have steam up and try the engine on Saturday next, and no time shall be lost in making and erecting pit head, so as to get the engine to wind from the 60 yards level. The repairs to the engine-shaft are in a forward state, and I expect to be able to complete it next week. Blackwell shaft is in regular course of sinking, and good progress is being made. Nothing done in the 60 yards level at the engine-shaft since my last report, the water having risen in the level, but as the weather is now very fine I expect to be able to resume work on Monday next.

GOLD AND SILVER.—Messrs. Pixley and Abell (March 17) write: America has been in the market for gold bars and coin during the past week, and not only have all amounts that have come from the Continent been taken for the United States, but 449,000oz., withdrawn from the Bank, has also been sent thither. On the other hand, 117,000oz., chiefly sovereigns, have been sent in. We have received 2650oz. from the Brazils, 8200z. from the West Indies, 28,530z. from Australia, per Orient Line; total, 37,430z. The Poonah takes 10,000z. to Bombay. The price of silver declined from 52½d., the rate mentioned in our last, to 52½d., at which a small amount by the West India steamer was sold. The market is to-day weaker and without animation, and we are unable to give any quotation. There is, however, but little silver offering at present. The Galileo has brought 26,400 from the Brazils, American steamer, 42,000z. from New York, the Medway 11,000z. from the West Indies; total, 79,400z. The Poonah has taken 91,000z. to India.

PLACERVILLE GOLD QUARTZ.—The rich streak recently passed through by the shaft in the Placerville Gold Quartz Mine has been drifted to from the lower level and cut, we understand, and found to be, as was predicted at time, a large, strong, and well-defined ledge, with every indication of permanency, and of containing untold millions of gold. The Rose Mine, adjoining this on the west, is also reported as developing splendidly, now being in one of the same character as that just developed in the Placerville Gold Quartz. These mines are both within the city limits, and will we have faith, prove to be as valuable as the Keystone of Amador county, the general characteristics of which are said to be identical. We shall soon know.—*Eldorado County Republican*, Feb. 17.

FOREIGN MINES.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, March 18: Produce nine days, first division of March, 5500 oits.; value, 21317; yield, 3.6 oits. per ton.

RICHMOND CONSOLIDATED.—Telegram from Eureka, Nevada, dated March 15: Week's run, 855,000, from 885 tons of ore; refinery, 855,000.

YORKE PENINSULA.—Ore returns: Ore on hand at the mine on Feb. 1, 1157½ tons of 14½ per cent., with about 4450 tons of low-class ores of about 5 per cent. Freight having risen, sales were about to be effected in the colony.

SIERRA BUTTES GOLD.—Result of the working at the Sierra Buttes and Plumas Eureka Mines for February:—Sierra Buttes: Total receipts, \$21,203; total working expenses, \$14,926.—Plumas Buttes: Total receipts, \$38,609; total working expenses, \$20,942. No sulphurates were worked during the month. The operations at both mines were considerably interfered with by the severity of the weather and the heavy snowfalls, preventing an adequate supply of water being obtained for the mills, and compelling a stoppage of about ten days at the Sierra Buttes Mills.

EBERHARDT.—F. Drake: Progress report for week ending Feb. 19: Incline Upraise (Tunnel): Distance run to Feb. 19, 373 ft.; run for the week ending Feb. 19, 27 ft.; distance run to Feb. 12, 400 ft.; run for the month of February, 70 ft. Distance run from mine incline by contract for the week ending Feb. 19, 8 ft.; distance run to Feb. 19, 23 ft.; run for the month of February, 28 ft.; total run for the week ending Feb. 19, 35 feet; distance run to Feb. 19, 428 ft.; run for the month of February, 98 ft.—Remark: Nothing new to report other than the week's progress.

BIRDSEYE CREEK.—Telegram from the superintendent, Mr. J. S. Goodwin, March 12: We have cleaned up at Red Dog after a run of 18 days; gross returns, \$6750; and at Neece and West, after a run of 26 days, gross returns \$7250.

BRAZILIAN GOLD.—F. Geach, Feb. 12: I beg to inform you of my arrival with the miners and artisans all well. In company with Mr. Lott I have been to the mines, where I found the underground and surface arrangements in a more forward state than I expected. I have not had time to examine the various mine workings at the Jacutinga, Disoberto, or Buraco d'Anta Mines, my attention being chiefly given to the Mata Mata Mine. The Mata Mata Mine is situated in clay and rock formation, on the east side of the spur of the mountain, and consists of an adit level and levels, and levels driven north and south in the lode. The lode in the north drive consists of numerous small veins, many feet wide, containing gold; this level is going direct into the mountain, and will give 60 to 80 fathoms back. The lode in the south drive also consists of numerous veins containing gold, and will give 40 to 50 fathoms back; samples were taken from several veins of stone, and yielded some gold. Judging from the very numerous and extensive old service workings immediately over these levels I consider it advisable to arrange for the adit level to be driven west to intersect all the side lode 40 to 50 fathoms deep, and thoroughly open this section of the property. Care will be taken to sample and save all the gold-bearing lode stuff for the stamps. After I have examined the works at the three other mines I will write you fully thereon. I enclose a sketch showing the position of the levels and the proposed new drive.

CANADIAN COPPER.—F. Bennett, March 3: Bolton Mine: The vein in the 10th of north shaft, is not quite so productive of ores, but still looks well, and in a sink we have just taken up behind the level the vein is looking very well, as does also the branch in the side of this level. The cross-cut, south of the shaft at this level, is passing through small branches of copper ore, and as there is a change in the rock (much darker) we think we are in the proximity of a vein.—Aston Mine: The winze sinking under the 10, east of No. 5 shaft, is still producing a little purple and yellow copper ores; the sinking of this winze is retarded by the water issuing from the vein.—St. Francis Mine: The vein in the adit level, east of the shaft, is about 3 ft. wide, containing a little grey and purple ores.—Hartford Mine: There is no important change to report, the vein in all the workings maintaining its general promising and productive character. We have commenced to sink a winze in the bottom of the 50 to communicate with the high backs of the 70 beneath, which as soon as completed will open out good ore ground for stopping, and add to the resources of the mine. The stopes in the back of the 85, east of No. 5 shaft, having exhausted the open ground present a nearly straight face of the vein from the 85 to the 70. We are about to resume the driving of the 85 for the purpose of opening out stoping ground, and judging from the appearance of the vein in the ends of the ground both above and below this level we may anticipate the opening up of a good vein in it.

PESTARENA.—Saml. Gifford, March 15: Pestarena District: At the 110 fm. level north, little has been done for the month, but continues to carry a small branch of ore worth 2 tons of 1 oz. per fathom. In the same level south the ore is more patchy and the rock stiffer, now worth 4 tons of 18 dwts. per fathom. The shaft has been cleared and secured below the 110, and is now in course of sinking. There is little lode to be seen in the bottom, but the ground is favourable. The cross-cut at the 90 continues in hard schist. At the 80 north the end is in sterile rock as, only a division representing lode, and the same may be said of the 55 north. The 46 north at Acquaviva continues hard and unpromising, whilst the 33 at same mine carries a little low grade ore in stiff micaceous schist. At the 33 north at Pechiera there is good ground, and a considerable quantity of water from a flooken branch, but no ore. The intermediate drive from rise slope at this level, continues to open out ore worth 6 tons of ½ oz. per fathom. The 65 south, on No. 2 lode, has got into more promising ground, the lode being now well-defined and carrying a little ore. An improvement is looked for here. At the 65 north, on No. 5 lode, we are still without ore except as broken strings in the flooken. In the rise south, from the same level, the lode is small and the ground very stiff, but there are signs of early improvement. The value at present is 4 tons of 15 dwts. per fathoms. The winze under the 33, on No. 5, is rather disappointing, up to the present little or no lode being seen, but within the last few days there is a favourable change, and it is hoped will be a good one. The stopes yield about the average quantity of ore, and the returns are much the same as for last month. A good thaw has set in, and the water for grinding, &c., is more abundant.

Val Toppa District: At No. 2 north on west lode the ore widens a little, but the grade is low and the ground will hardly bear stoping. The same level north on New lode has been resumed on a good width of iron-stained quartz, and the appearances are encouraging at present, there being a yield of 8 tons of 6 dwts. per fathom. No. 1 level north on New lode shows masses of broken and irregular quartz of low grade, but a good stream of water comes from the end now, which is quite a new feature, and it is hoped something good will result from it. The yield is 8 tons of 3 dwts. per fathom. At the same level north the lode is better defined with greater width and the ore of higher quality. This end is now worth 19 tons of 6 dwts. per fathom. The cross-cut west from No. 2 is getting through the hard band of quartzite and passing into fissile schist. No. 2 level on slide is still suspended to put in arching for securing the back. At level north at bottom of winze from intermediate under No. 2 the ore is rising, being shallowed by sterile schist, which seems likely to supersede it altogether. No. 3 level south on slide continues in talcose rock and is without change. The cross-cut at this level has been driven from No. 2 and seems to have reached the lode. The ground is good and has favourable indications. No. 4 level north on New lode has been resumed on a small branch of quartz, which seems worth following as being the only regular continuation of the lodes worked under different name east of the great quartz. The stopes have improved a little during the month and most of them are yielding larger quantities of better grade ore.

ARENDALE.—John Daw, jun., March 7: By the present I have to hand you the following report on Skymir and Bolstead Mines.—Skymir: Benson's Shaft: The lode in this shaft has been gradually improving, and will now produce fully 4 tons of copper ore per fathom; it is now 72 fms. from surface, or 12 fms. below our deepest level, the lode being strong and well defined; I am daily anticipating further improvement. By the end of this month we shall be able to start another level—the 75, and judging from the present appearance of the lode this level will be in very productive ground.—Lamb's Shaft: We have put four men to sink this shaft, which at the present time is 8½ fms. below the 60 fm. level; present value 3 tons of copper ore per fathom; the ground is now very favourable for sinking, it having hitherto been rather hard here—I believe we shall soon be in richer ground. In a short time we shall be able to drive west from this shaft, and the lode in the 75, which next month will be driven west from Benson's shaft, and as a winze is being sunk between these two shafts we in a few months shall be able to effect communication. The lode in the 60 has improved, and will now give 3 tons per fathom.—Stopes, Rises, and Winzes: These are almost on a par with January month, producing from 2 to 5 tons per fm. We have holed another winze from the 50 to the 60, and I am daily expecting to hole two more—one from the 30 to the 50, and one from the 50 to the 60; these winzes for the greater part have been in splendid ore ground, hence the stopes will be very productive.—Bolstead: There has been a slight falling off in the 20 clear of stopes, and then begin to sink so as to communicate with the said rise in the 30.—Murchison's Shaft: We have begun to sink this shaft with six men, its present value for copper ore being 3 tons per fathom. I am quite sure the lode will improve as we go deeper, and open up valuable stoping ground.—General Remarks: The schooner Emmie sailed from here on the 25th ult. with 180 tons copper ore for Newcastle. We have also chartered vessels to take 440 tons to Swansea, and are arranging with the owners of another vessel to take 170 tons to the Tyne. The weather has been most severe since the middle of January. We have fully 5 ft. of snow on the ground, and the thermometer registers almost daily from 7° to 21° below zero. We push on dressing to its utmost, but have often to stop to clear the ice and dig the frozen ore out of the jiggers. The dressing-house has the appearance of an ice cavern.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS

MINEOWNERS, STOCK AND SHARE DEALERS, &c

1. ST MICHAEL'S ALLEY, CORNHILL, LONDON.

Gwydrw Amalgamated Mines Company (Limited) has been registered; but our remarks upon this, as well as several notices to correspondents, are unavoidably deferred till next week. At Carnarvon the slide has been cut into at the 90 and is letting down the water from the old workings; and in order to prevent any accident larger pumps are being put in. It has cost at least 10,000l. to sink the new shaft, drive the 90, and arrive at this point; and we hope now we shall soon be under the great course of ore, where the deepest point, the sump below the 80, is very rich for copper. We hope also next week we may have to announce a good lode in both the bottom ends at Prince of Wales.

MANUFACTURE OF IRON AND STEEL.

A new method of operating upon iron by a combination of calcium or "magnetso calcium hydrate" or their carbonates, or calcium in any intermediate state of hydration with a volatile hydro-carbon oil for the purpose of refining it, and converting it into steel, is claimed by Mr. GEORGE ELLINOR, of Sheffield, as a novelty, and he has also invented improved apparatus to be employed in the process. The hydrate of calcium is introduced into the furnace or converter in the form of fine powder, and mixed with the hydro-carbon oil is blown in with the blast for the purpose of dephosphorising the metal. Mr. Ellinor likewise claims improvements in charges, mixers, or generators in which the blast of air is charged with the required quantity of hydro-carbon oil.

For the conversion of molten iron into steel in a ladle without the use of a blast or current of air Mr. Ellinor places at the bottom of the ladle a layer of spiegeleisen, ferro-manganese, or their equivalents, and next above a layer of charcoal saturated with volatile hydrocarbon oil, or *vice versa*, next above that a layer of hydrate of lime mixed with a small proportion (as compared with the proportion of volatile hydrocarbon oil mixed with the charcoal) of volatile hydrocarbon oil, next above that a layer of hydrate of lime only (if found necessary), and next above that a plate or plates of cast-iron or wrought-iron or their equivalents, to ensure the regular and successive action of the heat of the molten metal on each layer of materials in the ladle and prevent the irregular action of the chemical agents in the ladle on the molten iron; upon this plate is poured the molten metal (from a blast furnace, cupola furnace, air furnace, or other smelting or melting furnace), and it is forthwith treated thus. The plate or plates are gradually melted by the molten metal, and the heat strikes down. The hydrate of lime is first brought into action, and containing one-third by weight of water, the water is given off by the heat in the form of steam and passes off through the molten metal, and the metal is thereby purified; in the next layer the volatile hydrocarbon oil expands with the heat, and combining with the decomposed water of the hydrate mixed therewith forms a carburetted hydrogen gas, which by expansive force causes ebullition, and escapes through the molten metal to the top of the ladle, thus purifying the metal and driving off therefrom the phosphorous and sulphur. As the heat of the molten metal descends to and into the layer of charcoal saturated with volatile hydrocarbon oil, the heat of the metal is raised by the decomposition of the carbonaceous matter, and about the same time the spiegeleisen or its equivalent at the bottom of the ladle is melted, and assists in carbonising the molten metal and converting it into steel.

The quantities of the various materials used, and their disposition in the ladle, will vary with the quality of the metal operated upon, and the quality of the iron or steel required to be produced. In simply refining or purifying iron or steel in a ladle, or other similar appliance, as explained, the spiegeleisen, or its equivalent, would be omitted, the operation being otherwise conducted as above described. As a modification of the improvements the ladle, or other similar appliances, can be fitted with tuyeres and blast pipes, and be connected to a blowing-engine, and the molten metal in the ladle, or other appliance, be blown as in the Bessemer steel-making process, the said ladle, or other appliance, being charged with the materials or chemical agents as described. The improvements connected with the blowing of metal with a current of air charged with hydrate of lime and volatile hydro-carbon oil can be used in combination with the improvements in the ladle, or other appliance, charged with layers of hydrate of lime, hydro-carbon oil, spiegeleisen, for the purpose of refining iron, or converting iron into steel.

STEEL—ITS COMPOSITION AND PROPERTIES.

An interesting lecture was delivered in the hall of the Cutlers' Company, Cloak-lane, on Tuesday evening, by Prof. A. K. Huntington, of King's College, in which he remarked that good steel had been produced from time immemorial, and it might be asked what more was wanted. Why trouble about the principle of the process? The answer was that it was one thing to produce good steel, and another to produce it economically. The tendency of scientific knowledge was to cheapen production, and as a consequence to proportionately extend the applications of the product. They could take no better example of this than the Bessemer process. It was scientific in its conception, and altogether different from anything ever attempted before. The rationale of the process was in no way different from that of all other methods for the production of malleable iron from cast-iron—namely, the elimination of the carbon of the cast-iron as carbonic acid and carbonic oxide by means of oxygen. The value of the method depended, then, on the cheapness with which sufficiently good steel could be produced, and not on the capability of the process to yield a better quality than had previously been obtained by other methods. There was but one important drawback in the Bessemer process, and that was that it did not eliminate phosphorus, a substance which greatly impairs the working qualities of steel, and which was present in more or less quantity in the majority of iron ores. The consequence was that the expense of this process was somewhat greater than it would otherwise be, as ores practically free from phosphorus alone could be used. Nevertheless, this process had enormously cheapened the production of steel and extended its application.

Attention was next drawn to a modification of the Bessemer process—a step further in advance—which had enabled us to make good steel even from iron ore containing the largest quantity of phosphorus. Popular prejudices and ignorance of the principles of chemistry had caused it to be stated that good steel could only be produced by employing ore of superior quality. This had at last been practically demonstrated to be altogether untrue. If good steel could be produced from impure ore, why should not good steel be also obtainable from ore containing impurities? There was no reason why it should not be so, yet many had a strong prejudice against steel which had been made from more or less impure ore, and, in the case of cutlery and edge-tools, even against steel made from pure ore, if it had been produced by modern methods, which yielded steel equal, if not superior, to that obtainable by any older process, provided always that in both cases an equal amount of care be bestowed on the manufacture. The lecturer proceeded to give a minute description of the methods, dealing also with the modification of the Bessemer process known as the basic process. They had at last, then, triumphed over the arch-enemy of steel—phosphorus. It all seemed delightfully simple now, and the principle could be stated in half-a-dozen words; yet simple as it appeared it had required two years' hard work on the part of hundreds of willing minds and hands to render this process a commercial success. Its value would probably be better appreciated a few years hence than now. The year in which it became possible to produce good steel economically from ore containing much phosphorus would come to be looked upon as one of the most important in the annals of steel making.

DARLINGTON IRON COMPANY.—A strong effort is being made to reorganise the Darlington Iron Company (Limited). There is a belief that with the capital expended on the new steel works (over 25,000l.) and the other valuable property possessed by the company there ought to be a very large margin left for the shareholders after the creditors and the vendor have been satisfied.

WHEEL COMFORT AND NORTH TREASAVAN.—Captain Jaso J. James, under date of March 2, reports an important improvement on the copper lode in the 10, east of shaft. Since this improvement began 5 fms. have been driven; lode now 3½ ft. wide, worth 25l. per fathom, and has every appearance of continuing.

ST. JUST UNITED.—The heavy loss of 1600l. on the sixteen weeks working was, to some extent, accounted for by the statement in the agents' report that Sholl's pneumatic stamp has not worked satisfactorily. Therefore, they have stopped the working of it since Nov. 1, and their returns of tin have been made by stamping at the water-stamps. It they had sufficient stamping power they would have sold quite double the quantity of tin. They have, however, purchased a 30-in. cylinder engine, which is power sufficient to drive any number of heads that may be required, and will be put up as quickly as possible. The masons will finish the building of the new engine-house five weeks hence, when no time will be lost in putting in the engine and 32 heads of stamps.

The Goodevere Tin Mining Company

(LIMITED).

Incorporated under the Companies Acts, 1862 to 1880, whereby the liability of Shareholders is limited to the amount of their Shares.

CAPITAL £25,000, IN 25,000 SHARES OF £1 EACH,

PRESENT ISSUE, 20,000 SHARES.

Payable 2s. 6d. on application, 5s. on allotment, and the remainder as required in calls not exceeding 2s. 6d. each, at intervals of not less than two months.

Should no allotment be made, amounts paid on application will be returned in full.

DIRECTORS

CHARLES J. SIMS, Esq., 2, Drapers' Gardens, London, E.C.

WILLIAM ARTHUR, Esq., Holland Road, Kensington, W.

ALFRED THOMAS, Esq., M.E., of 10, Coleman Street, City (Chairman of the Bodidris Mining Company, Limited), will be invited to join the Board after allotment.

(Two other Directors may be elected at the first meeting of shareholders).

BANKERS—NATIONAL PROVINCIAL BANK OF ENGLAND, Threadneedle Street, London, E.C.

SECRETARY—Mr. ROBERT CUMMING.

CONSULTING MANAGER—Capt. WM. GEORGE, Manager of the Marke Valley Mine.

AGENT ON THE MINE—Capt. RICHARD KNOTT.

OFFICES—10, COLEMAN STREET, LONDON, E.C.

PROSPECTUS.

This company has been formed to acquire and work an extensive mining property in the parishes of St. Cleer and Altarnun, in the county of Cornwall, about six miles from Liskeard, two miles north of the celebrated Phoenix Mines, and to the west of the Kit Hill range.

The grants which the company acquire have a run of one mile in length on the course of the lodes from east to west, and three-quarters of a mile in breadth. The leases (which may at any time be renewed) are for 21 years from July, 1875, at the extremely moderate royalty of 1-20th, with a minimum rent of £15 per annum.

The attention of investors is directed to the fact that the company do not take over a virgin piece of ground of which they have to turn the first sod, but enter upon possession of a mine upon which a large amount of capital has been judiciously spent in development work.

The well known Phoenix Mines in the same district, and in a precisely similar geological formation, returned in about 12 years the sum of £180,000 in dividends, and still continue prosperous.

The configuration of the ground has admitted of the development of the property by the most inexpensive method known in mining—viz., by adit levels. There are two of these levels already driven into the hill on the course of the lode; the top or shallow adit has been driven a distance of 110 fms., and the lower or deep adit 120 fms., and these drivages, taken in conjunction with a shaft sunk east and in advance of the shallow adit end, prove that the lode is of more than ordinary value.

This company will at once adopt the suggestion of Capt. W. C. Vivian, and communicate the shallow adit end with the shaft. This, with the continuation of the adit, will at once open up a large section of the lode, which will be forthwith available for profitable working, and whilst this is being done the necessary dressing machinery can be erected to treat the ore stuff and prepare it for market.

Only one of the several lodes in the sett has yet been wrought, and this company will have the full benefit of the ore ground already laid open by the work so done, as well as the advantage to be gained by cross-cutting at a small outlay to intersect other parallel lodes.

The ample supply of water available for working the machinery, together with the peculiarly soft nature of the "waste" in the lode, render it possible to treat the ore stuff of this mine at a profit, when nine-tenths of the mines in Cornwall, with their expensive steam-engines, would sustain a loss. In most Cornish mines the coal merchant's bill constitutes a formidable item in the monthly cost-sheet (representing in this one item, in many of the large tin mines, in itself, a profit of from 15 to 20 per cent. on the capital of the company), but in this case all such expense will be rendered unnecessary, from the fact that a river runs close by which will supply ample water-power during all seasons of the year. Alluding to this very important feature Capt. W. C. Vivian in his report accompanying the prospectus says—"There is a river with a rapid fall flowing through the valley forming the western boundary of the sett, and the volume of water at present is very large, sufficient with a fall of 30 or 40 ft. to give the power of several large steam engines, and although in the summer it will be of course considerably reduced in quantity, yet, looking at the large area of moor land of which it takes the drainage, I am of opinion that it will afford to this mine ample power for all the stamping and dressing which will be required."

It is estimated that all the necessary dressing machinery can be erected for a sum not exceeding £2000, which will include a powerful water-wheel, 30 heads of stamps and dressing floors. It is, however, proposed to add to the stamps as the development of the mine proceeds and the returns of ore are increased.

The following calculations are based upon the operation of 30 heads of stamps only:—

30 heads of stamps will crush 30 tons of tin stuff per day, containing, say, only 25 lbs. of tin per ton, equal to per diem	750 lbs.
Or, per week of 6 days	4,500 lbs.
Or, per month of 4 weeks	18,000 lbs.
Or, 8 tons per month at £55	=£440
The returning charges would be, the wages of 30 men at £4 each per month	=£120
Cost of dressing, materials, &c., including all surface charges, say	£100
Total cost	£220
4 weeks' return of tin as above	£440
4 weeks' costs	£220
Balance of profit per month	£220
Or per annum	£2,860

This would be equal to a profit of 14 per cent. per annum on the share capital to be issued of 20,000/., always assuming two improbable contingencies: first, that the number of stamps is not increased; and, second, that the price of tin remains as at present. Of course, as the stamps are increased, or the price of tin is advanced, the profits of the mine would be augmented accordingly.

The mine has been inspected and reported on by the following well-known mining authorities—John Simmons, Esq., mineral agent to H.R.H. the Prince of Wales (whose report is private, and will be forwarded only on application to the secretary). The late James Richards, Esq., manager of the Devon Great Consols Mines from their commencement until his recent decease. Capt. Henry Rodda, of the Devon Great Consols Mines. Capt. W. C. Vivian, of Camborne and Capt. William George, manager of Marke Valley Mine. The last four reports accompany the prospectus.

In introducing a company like this, the directors venture to submit that they are supplying a public want. The present price of tin is such as to prove highly remunerative to sound and well developed properties producing this metal, but in the majority of cases investors are deterred from joining these mines by a wholesome dread of the "Cost-book System" upon which they are worked, and which practically means unlimited liability. In this case the liability cannot possibly go beyond £1 for each share subscribed.

The vendors, as a proof of their confidence in the success of the undertaking, agree to accept the whole of the purchase money (£15,000) in fully-paid shares of the company.

The following statistics show the profits that have been made by investments in some Cornish tin mines within recent times:—

Mine.	Total outlay on each mine.	Profits paid by each mine.
Carn Brea	£56,175	£308,000
Dolcoath	46,146	509,344
East Pool	3,120	133,680
South Wheal Frances	34,275	183,487
Tincroft	69,060	302,550
West Seton	30,600	257,600

It is an indisputable fact that larger fortunes have been made by tin mining than by any other industry, and Mr. Arthur Phillips, in his work on "British Mining," states that upon an outlay of £213,429 over seventeen millions sterling (£17,000,000) have been returned in dividends.

The only contracts entered into are one dated 8th February, 1881, and made between Alfred Thomas of the one part and Robert Cumming of the other part; and one dated 18th February, 1881, and made between the Goodevere Tin Mining Company (Limited) of the one part, and Alfred Thomas of the other part, copies of which contracts, as well as of the Articles of Association, may be seen at the offices of the company.

REPORT OF THE LATE JAMES RICHARDS, ESQ.

Goodevere Mine, May 24th, 1876.

According to your desire I have inspected this tract of mineral property situated in the parishes of Altarnun and St. Cleer, Cornwall. The sett or grant is very extensive, extending from east to west on the course of the lodes about ½ mile, and about the same distance from north to south. The shallow adit has been driven from a point some 160 fms. to the east of the Drains river, 50 fms. east into the hill or rising ground. For the first 20 fms. of this drive the lode being near the surface is not well defined or developed; but from this point it is more settled and of good size, varying from 2 ft. to 5 ft. wide, composed of conglutinated tin, capel, gossan, quartz, and tin ore; and in the present end it is from 3 ft. to 4 ft. wide, very promising. Several samples were taken from the lode at different places in the level, producing as follows:—19 lbs., 25 lbs., 26 lbs., and at one point 28 lbs. of tin per ton of stuff. Some 60 fms. in advance of this shallow adit level present end, a shaft has been sunk 7½ fms. from surface on the course of the lode, which shaft being full of water cannot at present be examined. The stuff from this shaft at surface, however, is very massive, and must undoubtedly come from a large lode. An average sample of the stuff produces 19 lbs. of tin per ton of stuff, and a selected stone, which I took with me, gives a result of 60 lbs. per ton. From about 135 fms. to the west of the shallow adit, at a point 60 fms. east of the Drains river, a deep adit level has been driven east some 80 fms., and has intersected a cross-course, the lode being 1 ft., 2 ft., and 3 ft. wide, and for short lengths proving rich in tin ore. This level has been extended east beyond the cross-course about 15 fms., and immediately to the east thereof the lode shows improvement, consisting of ferruginous quartz, prap, capel, peach, and tin ore; and, in the present end, the leading part of the lode for 1 foot in width is worth on an average 54 lbs. of tin per ton of stuff. In the bottom of this same adit level, 18 ft. behind the present end, a trial sink has been put down 6 ft., the lode in which looks remarkably promising, and contains tin throughout. For the further development of this lode I would recommend the driving of the deep adit level as fast as the nature of the work will admit, and also rising near the cross-course; and as the level advances other rises may be put up at various points for ventilation, and for the purpose of laying open the lode for stopping in the ordinary course of working. This level on being further driven some 170 fms., will be 50 fms. below the surface, a fact of itself of great importance. The shallow adit level should also be driven home to the eastern shaft, and a rise be put up in the back thereof and communicated therewithout delay, for the purpose of fairly laying open this portion of the mine. From the strong and promising appearance of the lode in the two adit levels, and the tin discovered at various points, with the promising appearances in the deep adit end, I am of opinion that as the workings advance into the hill still more productive discoveries will be met with, especially as the lode is intersected by a cross-course, which almost invariably may be depended upon as a favourable indication. The mine also possesses the advantage of a large supply of water from the Drains river, which can easily be made available for stamping, washing, and all other requirements for the full development of the mine, rendering the use of expensive steam machinery altogether unnecessary. The operations of the mine from the favourable nature of the ground (soft gossan) will moreover be economical and judicious, and judging from the whole of the favourable circumstances there is every reason to believe that the development of the mine will be attended with profitable results.

Since the date of this report (1876) a considerable sum of money has been expended in carrying out the development work therein recommended.

REPORT OF CAPTAIN HENRY RODDA.

Goodevere Tin Mine, May 29th, 1876.

I beg to forward you the following report, showing the work which has been accomplished since the commencement, as well as the present state and future prospects of this mine. About 320 fms. east, or near the top of the hill, a small trial shaft has been sunk 7½ fms. from surface, on a very fine looking lode 4½ ft. wide, composed of capel, quartz, peach, iron and tin ore, samples from which we have had assayed on different occasions, the results varying from 20 lbs. to 30 lbs. and 35 lbs. of tin to the ton of stuff. This shaft was suspended on account of the great influx of water, which proved too great to be kept under control by manual labour. The shallow adit level has been driven east on the course of the lode about 50 fms. In the first portion of the drive the lode was rather disordered, owing principally to the shallow and unsettled nature of the ground, in the last 20 fms., however, it has very materially improved both in size and character, and yields good tin work, with indications of a further improvement. We have about 62 fms. more to drive in order to get in under the shaft, which will, I have no doubt, drain the water therefrom and open up some profitable ground to be taken away by stopping in the ordinary course of working. The deep adit level has been extended east about 100 fms. on the course of the lode, and as was the case in the upper adit, owing to the shallowness of the ground the lode for some fathoms proved small and unproductive, but as the driving advanced further into the hill and into more settled ground the lode very much improved both in size and value, being in places upwards of 3½ ft. in width and yielding good tin work. The lode in the end is composed of capel, peach, quartz, iron and tin ore; and the ore-bearing part of the lode for 15 in. in width, will produce an average of 50 lbs. of tin to the ton of stuff. Some 18 ft. from the present end we have sunk about 6 ft. in the bottom of the adit on the lode, and we find it large and well defined, and producing good tin stuff throughout. In driving this level we have intersected a very fine looking cross-course, a fact of great importance, as it will, I have no doubt, tend greatly to enhance the value of the lode on driving further into the hill. We have a distance of about 150 fms. further to drive to get in under the shaft, which when accomplished, and a communication is effected with these two points, will effectively ventilate the mine, and at the same time give a back of 50 fms. of lode, to be taken away by stopping in the usual course, and without the aid of machinery. There is an abundant supply of water, available at all seasons of the year for pumping, stamping, and dressing the ore, which is a great advantage over steam-power, a great saving being effected in coals and other expenses. The mine can be worked at a very moderate cost, the ground being easy and inexpensive for breaking. I should observe that there are other lodes in the sett, which can be easily proved by means of adit levels into the hill, similar to those already driven. I would suggest for the future development of the mine that both the deep and shallow adit levels be driven home to the shaft, and that the shaft be sunk and communicated with the deep adit with all possible speed, in order to ventilate and to lay open the mine as quickly as possible. A rise should also be put up in the back of the deep adit level and continued to the surface for the purpose of facilitating the work and of ventilating this part of the mine. The cost of carrying out the work suggested—the driving of the deep adit level 150 fms., and the shallow adit 62 fms., with the sinking of the shaft 42 fms. below the present deepest point, and rising 30 fms. above the back of the deep adit—will according to my estimate be about

£2000. Looking at the great advantages connected with the working of this tract of mining ground, and considering that there are upwards of 50 fms. of backs, which can be reached perfectly dry and without the aid of machinery, with the lode at present producing tin stuff that would pay if stamps were erected and presenting indications of great promise in the different points already laid open; considering, moreover, the facilities afforded by a full supply of water sufficient for all purposes, the circumstances altogether are unusually favourable, and I feel confident that, on the mine being fairly laid open, and the necessary dressing and stamping machinery being erected, good returns will at once be made, and the mine will be brought into a good paying condition.

HENRY RODDA.

Since the date of this report (1876) a considerable sum of money has been expended in carrying out the work of development therein recommended.

REPORT OF CAPTAIN W. C. VIVIAN.

Reskadinnick, Camborne, Feb. 14, 1881.

I have at your request inspected Goodevere Mine, in the parishes of St. Cleer and Altarnun, near Liskeard, and beg to hand you the following report thereon. The upper adit has been driven from 110 to 120 fms. in a north-easterly direction into a hill which rises rapidly for about 250 or 300 fms. and then slopes away to the east, the whole of which is embraced within the limits of the sett, giving an extent of nearly a mile in length, with a considerable width bearing a fair proportion to the length. In the first 60 or 70 fms. of the upper or shallow adit the lode is sparry, but in the last 20 fms. driven there is a considerable improvement in its character, owing to the appearance of a larger proportion of light coloured peach, which is a favourable matrix for tin, and to the presence of tin itself in sufficient quantity for profitable working. In the present end of this level the lode is not only of better quality than it has been in any part previously driven, but it has also opened to a greater width, being at about midway from the back to the bottom of the level 4 ft. wide, but widening rapidly in going down, so that in the foot of the end it is fully 6 ft. wide. This end is just under a shaft which has been commenced at the surface near ancient miners' workings, and sunk 7 fms., at which depth further progress was prevented by water. The lode broken in sinking now lies on the surface about the shaft, and contains a fair proportion of tin, whilst bearing a very similar character to the lode stuff in the adit end under. The shaft is here about 20 fms. deep, and there is, therefore, a distance of about 13 fms. to sink or rise to communicate the shaft with it. This could best be done by rising from the adit, and ventilation would have to be afforded for carrying out this operation by the blowing machine, which was formerly used when driving the adit and which is still in the level, together with the air pipes. I calculate that six men could rise through to the shaft in two months at a cost of about £25 per month. This would lay open profitable tin ground for stopping, and enable the driving of the adit further eastward into the hill to be resumed under the most favourable conditions, and where, should the present state of the lode continue, still more valuable tin ground will be quickly and cheaply laid open. Owing to the rapid rise of the hill this level will be continually gaining greater depth, thus affording better prospects for permanent discoveries, and giving a large section of lode above from which to obtain supplies of tinstone. There is a good tramroad laid down in this level from one end to the other. The deep adit level has been commenced much nearer the western foot of the hill, and is, consequently, considerably deeper than the shallow adit (probably 30 or 40 fms.), so that on its being driven on to the tin ground which has been discovered in the latter level a tolerably deep mine (say 60 fms.) will be formed, the resources of which will be perfectly available without the expensive aid of steam or other machinery for drawing purposes. It will be evident that any mine under such circumstances will, as a matter of course, yield a considerably large proportion of profit from the same production of a mile from east to west, which pumping machinery has to be employed. This deep adit has been already driven a distance of about 120 fms. into the hill, and tin is being met with in the last part of the drive. Its continuance to the highest part of the ground will give it a depth of little if anything short of 70 fms. In this adit also there is a good tramroad laid down from one end to the other. There is a river with a rapid fall flowing through the valley, forming the western boundary of the sett, and the volume of water at present is very large—sufficient with a fall of 30 or 40 ft. to give the power of several large steam-engines; and although in the summer it will be, of course, considerably reduced in quantity, yet looking at the large area of moor land of which it takes the drainage, I am of the opinion that it will afford to this mine ample power for all the stamping and dressing which will be required. I may say, in conclusion, that the prospects presented here at present are certainly very encouraging; and seeing the great results which have been obtained from the tin discoveries in the well known Phoenix Mine, two or three miles distant, in a similar geological locality, there is good reason for anticipating that the tin ground already discovered will be continuous, and afford the means as it is further developed of giving good profits to the shareholders. It is also important to notice that the lode is easy for exploring and working, and the circumstances of the ground generally ensure with good management a large amount of work with a comparatively low rate of expenditure. (Signed) W. C. VIVIAN.

REPORT OF CAPTAIN WILLIAM GEORGE, OF MARKE VALLEY MINE.

Marke Valley Mine, Feb. 13, 1881.

I have, at your request, inspected the Goodevere Tin Mine, which is situated in the parish of Saint Cleer, Cornwall, and to the north-west of the Phoenix United Mines. The sett is very extensive, being full three-quarters of a mile from east to west as well as from north to south. The terms under which the grant is held I consider are favourable, and the advantages for giving the different lodes a fair trial for proof of their value in depth are far superior to those possessed by most mining properties. On the western part of the sett is the course of the Drains river, which at all seasons of the year is a large and commanding stream; from this valley the hill rises gradually, and at the summit a shaft has been sunk a few fathoms on the course of a lode said to be 4 ft. wide, but the recent floods have broken down the timber, and I was prevented from seeing it. I broke off several samples from the various rocks on the burrow surrounding the shaft, which gave a very good percentage of tin. The shallow adit has been driven east from the side of the hill on the course of a regular lode from 110 to 120, and it is said to be just under the shaft, 20 fms. from surface. The lode in this drive has varied from 2 to 4, and 5 ft. wide; and judging from different samples broken here, as well as those tried from the large piles of stuff at the mouth of the adit, together with that which came out of the shaft, I have no hesitation in saying that a great deal of the backs here could be worked at a profit, if the required appliances for returning the same were erected. Near the bottom of the hill a deep adit has been driven about 120 fms. in the direction of the one above referred to, which on reaching the perpendicular of the shaft will be 60 fms. deep; but although you have at times broken some very good work for tin in this drive, and especially from a sink in the bottom, I am not satisfied that you are on the same lode you have in the shallow adit; and considering the favourable character of the ground, and there are known lodes to the south of this, I would recommend that a cross-cut be driven south, which will not only satisfy any doubts but would also be proving other side lodes, which in all probability will be found equally productive as I believe the one referred to will at the present and deeper levels. Further, it is a fact worthy of notice that large quantities of tin have been returned from shallow workings in this and surrounding property. I therefore, confidently recommend it as being a property that can be very inexpensively worked with good prospects of success, with only a comparatively small capital to erect the required machinery; returns may then be relied on to be increased as the workings are extended. (Signed) WILLIAM GEORGE.

BEDFORD UNITED.—No mine in the Tavistock district is opening out such a rich deposit of copper ore as they are now doing in the Bridge lode. Another Devon Consols or another South Devon will soon be herald forth to the world, and then the shares now selling at 2½. will soon be 5½. Take the hint and buy.—TAVY.

MINING INVESTMENTS—WHAT TO SELECT AND WHAT TO AVOID.

—A new and entirely re-written edition of Mr. Alfred Thomas's pamphlet bearing this title has just been issued (London; The Author, Coleman-street). Referring to the Indian Gold Mines, Mr. Thomas states that Mr. R. Brough Smyth, who for many years occupied the responsible position of Secretary of State for Mines in Victoria, and was, therefore, second only to the Minister of Mines, "was highly esteemed in Indian official circles at the time" he reported on the Wynad and Mysore districts, but, "so far as mining circles in this country are concerned he is almost wholly unknown." The fact, however, of his being unknown to certain mining engineers at home does not alter the fact that his acquaintance with all the details connected with the nature of auriferous deposits and of the details of gold mining is probably greater than that of any other man living. There is next a chapter on foreign mines, and then one on home mines. The prospects of tin, copper, and lead are next treated of, and then follows "A Few Practical Words to Investors," and much other equally interesting matter.

PRESS MANUAL.—Messrs. C. H. May and Co., the well-known advertising agents, of Gracechurch-street, have just issued the fourth annual edition—that for 1881—of their Press Manual. That Messrs. C. H. May's catch-line—judicious advertising is the keystone of commercial success—is absolutely true is beyond question, and it will be generally admitted that the necessary judgment cannot be better formed than by consulting a list of this kind, which furnishes full details as to the place of publication of every newspaper in the kingdom, population of locality in which it is published, chief occupation of the readers, and so on. The small expenditure involved—sixpence—will be repaid many fold by the advantage derivable.

CASELL'S PUBLICATIONS.—Science for All, part 40, contains conclusion of article on a Piece of Paraffin; Fogs, by Dr. R. J. Mann; the Movement of Living Beings, by Dr. Andrew Wilson; Animal Heat, by E. W. von Tuzenmann; a Grain of Sand, by Professor Williamson; and the Connecting Mechanism of the Universe, by W. Burham. The History of Protestantism, part 21, extends from the chapter on the Commercial Enterprise and Banishment of the Jesuits to that on the Waldensian Colonies in Calabria and Apulia. Knight's Dictionary of Mechanics, part 51, extends from Panama-hat to Parchment.

NOBEL'S DYNAMITE



Manufactured and sold by

NOBEL'S EXPLOSIVES COMPANY (LIMITED), 149, West George Street, Glasgow.

AGENTS EXPORT: J and G. THORNE, 85, GRACECHURCH STREET, LONDON, E.C.

FACTORIES--ARDEER WORKS, STEVENSTON, Ayrshire.

WESTQUARTER WORKS, POLMONT STATION, STIRLINGSHIRE.

THE COTTON POWDER COMPANY (LIMITED)

RECOMMEND TO CONTRACTORS, MINERS, PIT SINKERS, QUARRYMEN, AND OTHERS, THEIR

TONITE, OR COTTON POWDER,

AS BEING THE SAFEST, CHEAPEST, AND STRONGEST OF ALL EXPLOSIVES.

TONITE is the most efficient and economical blasting agent ever invented, and is largely in demand. It does not contain any Nitro-glycerine, and is, therefore, exempt from the dangers of exudation, or of freezing and its attendant process of thawing.

The Company also manufacture PATENT DETONATORS of a quality much superior to the foreign article. The trade supplied on favourable terms.

23, QUEEN ANNE'S GATE, LONDON, S.W.

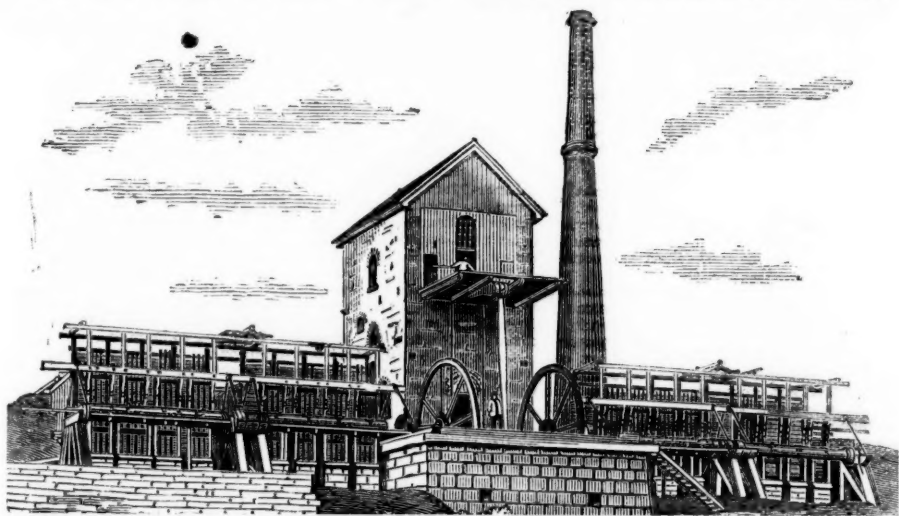
WORKS: FAVERSHAM, KENT.

Agents DINEEN, SON, and Co., Leeds; DAVID BURNS, Haltwhistle; R. J. CUNNACK, Helston, Cornwall; J. and W. SMITH, Chapel-en-le-Frith; W. VEITCH, Jedburgh, N.B.; W. HARRISON, Barrow-in-Furness.

THE TUCKINGMILL FOUNDRY COMPANY,

(TUCKINGMILL FOUNDRY AND ROSEWORTHY HAMMER MILLS),
CAMBORNE, CORNWALL,

Engineers, Iron and Brass Founders, &c.



REGISTERED TRADE MARK.

MANUFACTURERS OF EVERY DESCRIPTION OF

REGISTERED TRADE MARK.



PUMPING, WINDING, AND STAMPING ENGINES

ALL KINDS OF

MINING MACHINERY, SHOVELS, AND MINERS' TOOLS;

ALSO OF

BLAKE'S STONE BREAKERS.

ESTIMATES GIVEN UPON INDENTS AND SPECIFICATIONS.

ILLUSTRATED CATALOGUES POST FREE ON APPLICATION

LONDON OFFICE: 85, GRACECHURCH STREET, E.C.

Also the best WINDING and HAULING ENGINES, BOILERS, PUMPS, &c., &c. GUIBAL VENTILATING FANS, AIR RECEIVERS, WAGONS, PIT-HEAD STOCKS, SCHRAM'S STONE-CUTTING MACHINE, and every description of COLLIERY and MINING PLANT and CASTINGS. Illustrated Catalogues and Price Lists, and references to places where the machinery may be seen in operation, on application at 9, Northumberland-street, or at Chesterfield.

SELECTED BY THE BRITISH AND OTHER GOVERNMENTS.

MANCHESTER WIRE WORKS.

NEAR VICTORIA STATION, MANCHESTER.

(ESTABLISHED 1790).

JOHN STANIAR AND CO.,

Manufacturers by STEAM POWER of all kinds of Wire Web, EXTRA TREBLE STRONG for

LEAD AND COPPER MINES.

Jigger Bottoms and Cylinder Covers woven ANY WIDTH, in Iron, Steel, Brass, or Copper

EXTRA STRONG PERFORATED ZINC AND COPPER RIDDLES AND SIEVES

Shipping Orders Executed with the Greatest Dispatch.



For Excellence
and Practical Success
of Engines.



Represented by
Model exhibited by
this Firm.

HARVEY AND CO.,
ENGINEERS AND GENERAL MERCHANTS
HAYLE, CORNWALL

LONDON OFFICE.—186, GRESHAM HOUSE, E.C

MANUFACTURERS OF

PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of the largest and most approved kinds in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.

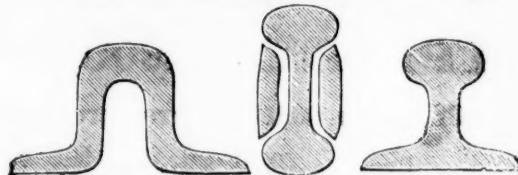
SHIPBUILDERS IN WOOD AND IRON.

MANUFACTURERS OF
HUSBAND'S PATENT PNEUMATIC STAMPS

SECOND-HAND MINING MACHINERY FOR SALE,
IN GOOD CONDITION, AT MODERATE PRICES—viz.

PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES; STEAM CAPTAINS; ORE CRUSHERS; BOILERS and PITWORK of various sizes and descriptions; and all kinds of MATERIALS required for MINING PURPOSES.

J. N. BEATSON AND SON,
40h, St. Mary's Gate, Derby.



IRON AND STEEL RAILS, of all sections, from 10 to 86 lbs. per yard, new perfect, new slightly defective, or second-hand, with Fish-plate Bolts and Nuts, Chairs, Spikes, and Points and Crossings to match, when required.

STEEL AND IRON WIRE ROPES, LOCOMOTIVE ENGINES, &c., &c. BARS, PLATES, SHEETS, &c. STEEL OF ALL KINDS. PIG IRON OF ALL KINDS. Delivered at all Railway Stations and Ports in Great Britain.

DUNN'S

IMPROVED ROCK DRILL.

This DRILL is of GREAT STRENGTH and SIMPLICITY SECOND TO NONE IN THE KINGDOM.

We are prepared to SUPPLY our well known MACHINES at greatly REDUCED PRICES from £35, according to calibre of cylinder

ESTIMATES GIVEN FOR PLANTS, &c., &c.

Dunn's Patent Rock Drill Company

(LIMITED),

OFFICE,—193, GOSWELL ROAD, LONDON, E.C.

W. TREGAY, Mining Engineer, REDRUTH, Having had many years' practical experience in Metallic Mines, prepared to INSPECT, REPORT, and ADVISE on every description of MINERAL PROPERTY

MEXICO, NEW MEXICO ARIZONA, UTAH, NEVADA AND CALIFORNIA.

F. M. F. CAZIN,

MINING AND CIVIL ENGINEER,

At BERNALLILLO, NEW MEXICO, U.S. OF AMERICA.

Has 24 years' experience in Mining and Smelting, and 10 years experience American Business and Law, offers his services at moderate charges for Reporting on Mining and other Property in any of the above-named States or Territories gives correct, safe, and responsible advice as to securing full titles and possession and, as to best mode of utilising the property, will assist in settling existing difficulties by compromise, and in disposing of developed mining property when held at real value; offers his assistance for securing undeveloped mining properties at home prices. As to care taken in reporting, reference is made to the *Mining Journal* Supplement, April 1, 1876, containing a report on property of the Maxwell Land Grant and Railway Company; as to technical standing, to the prominent men of the trade—compare *Mining Journal* of Aug. 30 and Nov. 31, 1872, and *New York Engineering and Mining Journal*, Feb. 28, 1874.

ALEX. DEL MAR,
MINING ENGINEER,

Formerly Director of the Bureau of Statistics of the United States, Superintendent of the United States Special Commissioners of Mines, Mining Commissioner for the United States Monetary Commission, author of a "History of the Precious Metals," &c., 216, SANSOME STREET, SAN FRANCISCO, CALIFORNIA. Mining Properties surveyed and reported upon. Assays and quantitative analyses made of ores, &c.

Second Edition. Just Published, price 2s. 6d.

A NEW GUIDE TO THE IRON TRADE OR MILL MANAGERS' AND STOCK-TAKERS' ASSISTANT; Comprising a Series of New and Comprehensive Tables, practically arranged to show at one view the Weight of Iron required to produce Boiler-plates, Sheet-iron, and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions. To which is added a variety of Tables for the convenience of merchants, including a Russian Table. By JAMES ROSE.

Batman's Hill Ironworks, Bradley, near Bilston.

OPINIONS OF THE PRESS.

"The Tables are plainly laid down, and the information desired can be instantly accurately obtained."—*Mining Journal*.

"900 copies have been ordered in Wigan alone, and this is but a tithe of those whom the book should commend itself."—*Wigan Examiner*.

"The Work is replete on the subject of underground management."—*M. BANK Colliery Proprietor*. To be had on application at the MINING JOURNAL Office, 26, Fleet-street, London

Just published.

THE NORTH WALES COAL FIELD Being a series of Diagrams showing the Depth, Thickness, and Local Names of the Seams in the principal Collieries of the various districts, with Index, Geological Map, and horizontal sections across the Ruabon, Brynbo, Buckley, and Mostyn districts. By JOHN BATES GREGORY and JESSE PRICE, of Hope Station, near Mold, Flintshire.

Price: Mounted on holland, coloured and varnished, and fixed on mahogany rollers, 30s. each; or in book form, 12x9, mounted and coloured, 25s. each. May be obtained, by order, of all Booksellers or direct from the MINING JOURNAL Office, 26, Fleet-street, London, E.C., upon remittance of Post Office Order for the amount.

DEBILITY AND NERVOUSNESS.

Free Edition, 152 pages, post free, in envelope, two stamps. The **WARNING VOICE**.—A Special Medical Book for Young Men on the Cause, Consequence, and Treatment of certain forms of Debility and Nervousness, viz.—Mental and Physical Depression, Palpitation of the Heart, Noises in the Head and Ears, Impaired Sight and Memory, Indigestion, Pains in the Back, Headache, Piles, Constipation, Hysteria, Dizziness, Local Weakness, Muscular Relaxation, Nervous Irritability, Blushing, &c., resulting from Exhaustion of Nerve power, effect of Overwork, City Life, Worry, Brain Toil, Intemperance, and other abuses of the system. Address, Dr. H. SMITH, 8, Burton Crescent, London, W.C.

Issue of 120,000 Shares of £1 each—at Par,

Payable—2 Shillings per Share on Application.

8 " " Allotment.

5 " " 2nd May.

5 " " 2nd June.

20 Shillings

The SANTA-CRUZ SULPHUR & COPPER COMPANY, LIMITED,

Incorporated under the Companies' Acts, 1862, 1867, and 1877, which limit the Liabilities of Shareholders to the amount of their Shares.

CAPITAL, £200,000, IN 200,000 SHARES OF £1 EACH,

Of which 60,000 Shares are appropriated in part payment for the Properties purchased, 20,000 Shares are reserved, and the balance, 120,000 Shares are now offered for Subscription at Par.

DIRECTORS.

Sir FRANCIS CHARLES KNOWLES, BART., F.R.S., *Chairman.*

WILLIAM BAXTER, Esq., Director of the Frontino and Bolivia Gold Mining Company, Limited.

PATRICK CARNEGIE, Esq., C.I.E., Director of the Devala Moyer Gold Mining Company, Limited.

COLONEL W. M. COCHRANE, York Buildings, Adelphi, and Hetton Colliery, Durham.

R. F. GLADSTONE, Esq., Director of the Callao "Bis" Gold Mining Company, Limited.

ALEXANDER NOWELL SHERSON, Esq., Director of the East Wheel Rose, Limited.

CONSULTING ENGINEER.—MR. W. H. HOSKING, M.E.

AGENTS. { Messrs. J. R. BANNER and CO., Liverpool.

For Liverpool and the Lancashire District.

Messrs. JOHNSON, LIMPRICHT, & CO., Newcastle-upon-Tyne.

For the Tyne and District North of the Humber.

SOLICITORS.—MESSRS. MORGAN & HARRISON, 15, Old Jewry Chambers, E.C.

AUDITORS.—MESSRS. J. F. LOVERING & CO., 77, Gresham Street, E.C., Public Accountants.

BANKERS.—THE IMPERIAL BANK, LIMITED, 6, Lothbury, E.C.

BROKERS.—MESSRS. MARSHALL & HULBERT, 18, Finch Lane, E.C.

SECRETARY.—MR. J. J. TRURAN.

REGISTERED OFFICES.—187, GRESHAM HOUSE, OLD BROAD STREET, E.C., LONDON.

PROSPECTUS.

Object of Company.

This Company is formed to purchase and work the well-known Spanish Pyrites (Sulphur and Copper) properties known as the Dos Amigos and Guillermo Estates, held under Concessions from the Spanish Government authorities, and which are situated at Santa-Cruz, near Ferrol, Spain, distant only five days by steamer from Liverpool and Newcastle-on-Tyne.

Demand for Spanish Pyrites.

The production of Spanish Pyrites is now attracting considerable public attention, the demand for which is at present practically supplied by three Companies—viz., the Rio Tinto Company, Limited, the Tharsis Sulphur and Copper Company, Limited, and Mason and Barry, Limited (a private Company), and it is proposed that the Santa-Cruz Sulphur and Copper Company, Limited, shall be added to the number of those very successful Companies, and in the opinion of the Directors there is every reason to anticipate a proportionate measure of success being attained by this Company.

Offers to Purchase the whole Annual Produce of Mines.

The three Companies referred to raise together about one million tons annually, yet so great has the demand become for this class of mineral both in Great Britain and on the Continent that offers have already been made by various firms for the purchase of the whole annual supply that the properties of this Company can produce at prices that based on the cost of production as estimated by the Company's officials would give a profit of about fifteen shillings per ton, and after the construction of a tramway to the shipping port of Port Naida near Ferrol (about 12 miles), would be increased to over twenty shillings per ton, and this calculated on the present very low price of ore—viz., about 2l. per ton. The Directors propose to construct this tramway immediately the necessary license to do so is obtained from the Spanish authorities, for which application will at once be made.

Character of Ore.

The extent of this annual supply will be the sole limit to the amount of profit the Company can make, as the ore is readily saleable to any extent, and the analysis made—the result of tests from a cargo of ore raised from the Santa-Cruz mines, and sold—shows that it is of a similar character to that of the Rio Tinto and Tharsis and Mason & Barry mines.

The following is the assay made by Messrs. Heywood Bros., of Cardiff, of this cargo when sold—viz., 42.75 per cent. of Sulphur, 2.83 of Copper; this result though satisfactory it is considered will be exceeded as the lodes are further worked on, and as the price varies according to the quantity of sulphur and copper it contains, a greater profit per ton may be looked for.

Estimated Quantity above Water Level nearly 2,800,000 Tons, and 3,960,000 Tons below Water Level.

The reports of Mr. William Gulley, M.E., who was for several years one of the Mining Engineers and Assayers to the Tharsis Sulphur and Copper Company, Limited, and of Mr. George Robson, C.E., estimate that there are above the water level nearly 2,800,000 tons of ore, which can be worked without the necessity of pumping machinery or hoisting power. Captain Thomas Rosewarne, one of the Company's Superintendents, in his Report, estimates the quantity of mineral below the water level assuming the same rate of yield, for a workable depth of only 200 fathoms, at 3,960,000 tons, giving a total of 6,760,000 tons.

Ninety-Six Years' Supply.

Now, taking the Company's output at 70,000 tons per annum, or considerably less than one-fifteenth of the present total annual consumption, there would be a supply above the water level for 40 years, and below to the limited depth of 200 fathoms an additional 56 years, together of 96 years' supply.

Immediate Commencement of Operations.

The principal markets for the mineral in Great Britain are Liverpool, Newcastle-on-Tyne, South Wales, and Glasgow. Shipments will be commenced without delay, as Captain Rosewarne reports "there is now sufficient ore exposed to allow of 100 men being set to work at once," so that profits will be made from the commencement of operations.

Estimated Output, 90,000 to 120,000 Tons annually.

The rough sketch map enclosed herewith will give some idea of the extent of the properties, being from East to West nearly half-a-mile on the course of the veins, consisting of three lodes, passing through a mountain. When the North and South cross-cuts are connected a large number of men can be employed in the extraction of ore, and as soon as the portion of the East cross-cut remaining to be opened is completed—only 25 fathoms—and the necessary developments are made, Captain Rosewarne, who has been opening out the properties for about nine months, states in the accompanying report that from 300 to 400 tons per day, or say from 90,000 to 120,000 tons per annum, can be delivered.

Estimated Net Income, 70,000l. per Annum.

With reference to the estimated profits, assuming an output of only two-thirds of this quantity, viz., 70,000 tons, at a net profit of 15s. per ton, the net income would be 62,500l. per annum.

Equal to 35 per Cent. on Total Capital.

This estimate of profit is arrived at after allowing for all expenses, including the cost of carting the ore from the mines by road to the shipping port near Ferrol. When the tramway is laid, a saving of about 5s. per ton in carriage, &c., is anticipated, thus adding to the estimated revenue by 17,500l., making a total income of 70,000l., which would be equal to 35 per cent. on the total share capital.

As to Increased Yield of Mines.

There is, however, no reason why 70,000 tons should be looked upon as a maximum, the quantity to be shipped is a mere question of men and development and yield of the mines, as the ore requires no dressing or treatment of any kind, but has merely to be broken from the lodes and carted or trammed to the place of shipment, from whence it will be shipped to Liverpool and other ports, and the Directors are advised a still larger quantity could be readily sold by contracts made in advance.

Ample Working Capital.

The working capital of 60,000l. which will be available, is considered to be amply sufficient for the purpose of developing the Company's properties, constructing the proposed tramway, and all other necessary works incidental to the carrying on of the Company's operations on a large scale, and the 20,000l. unissued will be held as a reserve.

Profitable Character of Investment in Sulphur and Copper Companies.

The facts and figures advanced are sufficient to demonstrate the unusually profitable character of this undertaking, which may be further illustrated by the financial results of the Rio Tinto Company and the Tharsis Company, both carrying on similar operations, whilst Mason and Barry, Limited, is also known to be in the highest degree successful. The Rio Tinto has a share capital of 2½ millions, besides debenture debt, and its 10l. shares stand at 23l.; whilst the Tharsis Company has paid dividends as high as 40 per cent., and has divided amongst its Shareholders since its formation, the large sum of over two millions sterling in dividends, and its 10l. shares, with a paid-up capital of 899,300l., stand at 40l., or four times their par value.

Terms of Contract.

The terms upon which the Company has contracted to purchase the whole of the properties comprised in the Concessions with the manager's residence, offices, workshops and plant, tools and materials, as per schedule annexed to contract, is 120,000l. payable as to 60,000l. in cash, and 60,000l. in shares, being the largest amount of shares

allowed by the Stock Exchange regulations to be issued in payment for the properties. This contract is made between The New Tharsis Sulphur Company, Limited, of the one part, and John Jameson Truran, as Trustee for and on behalf of the Santa-Cruz Sulphur and Copper Company, Limited, of the other part, and is dated the 18th day of March, 1881.

Appointment of Officers.

This is the only contract entered into for or on behalf of this Company. The expenses of its formation will be limited to the necessary cash outlay required, and no payment beyond that for acquiring the property has been or is intended to be made.

The Directors beg to announce that they have made arrangements for the following appointments in connection with working the properties and disposal of the mineral:—

Messrs. J. R. Banner & Co., Liverpool, as Agents for Lancashire.

Messrs. Johnson, Limpricht & Co., Newcastle, as Agents for the Tyne and the districts North of the Humber.

The standing of these two firms is too well known to need comment.

Mr. W. H. Hosking, M.E., as Consulting Engineer.

Captain Thomas Rosewarne, and Captain John Rosewarne, as Resident Superintendents at the Mines, all men of great experience in their profession.

Summary of Advantages.

Finally the Directors are of opinion that, considering the extent of the property, the proved character and quality of the mineral it contains, the inexpensive manner in which it can be worked, the favourable terms on which it is held, and the moderate amount of the capital of the Company, it presents features well worthy the special attention of investors.

New Processes for Extracting Gold from Spanish Copper Pyrites.

Whilst the Directors are thus perfectly satisfied with the prospects of ordinary commercial profits from the sale of the Company's mineral, they feel bound to allude to the topic now prominently before the public of alleged discoveries for the extraction of the Gold known to be contained in Spanish Pyrites. If it be true, as is claimed, that gold and silver can be extracted at a moderate cost, the value of the ore would be materially increased. The result to the Company, with a quantity of ores estimated at over 6½ million tons, as indeed to all companies owning Spanish pyrites, would be so great that the Directors only allude to the subject to show that they are not unmindful of the possibility of at least a portion, if not all, the anticipated results being obtained.

The Directors, however, in their estimate of anticipated profits, have not in any way calculated upon this possible source of revenue—the ordinary operations of the Company alone in their opinion indicate such promising results, that until the new processes are more advanced, it would be unwise to do more than to say they will, in the interests of the Shareholders, watch the progress of the various experiments now going on with the closest attention.

Quotation for Shares.

Application will be made to the Stock Exchange in due course for an official quotation for the shares of the Company.

Copies of the Contract and Articles of Association can be seen at the Solicitor's offices.

Applications for shares may be made in the form accompanying the Prospectus, and may be sent either to the Bankers or to the Secretary at the offices of the Company as under, where the various Reports can be seen, and Prospectuses and all information obtained.

In the event of any applicant receiving no allotment, the deposit paid will be returned forthwith without deduction.

Registered Offices:

187, Gresham House, Old Broad Street, E.C.